A JOURNEY FROM MADRAS

THROUGH THE COUNTRIES OF

MYSORE, CANARA, AND MALABAR,

PERFORMED UNDER THE ORDERS OF

THE MOST NOBLE THE MARQUIS WELLESLEY,

GOVERNOR GENERAL OF INDIA,

FOR THE EXPRESS PURPOSE OF INVESTIGATING THE STATE OF

AGRICULTURE, ARTS, AND COMMERCE; THE RELIGION, MANNERS, AND CUSTOMS; THE HISTORY NATURAL AND CIVIL, AND ANTIQUITIES,

IN THE DOMINIONS OF

THE RAJAH OF MYSORE,

AND THE COUNTRIES ACQUIRED BY

THE HONORABLE EAST INDIA COMPANY,

IN THE LATE AND FORMER WARS, FROM TIPPOO SULTAN.

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A

JOURNEY FROM MADRAS

THROUGH THE COUNTRIES OF

MYSORE, MALABAR AND CANARA.

CHAPTER X.

FROM COIMBETORE TO THE FRONTIER OF MALABAR.

1800. Nov 1. Appearance of the country.

On the 1st of *November* I went ten *Malabar* hours' journey to *Kanya-uru*, which is a small village without any shops, and is situated at some distance north from the *Noyel* river. The country near *Coimbetore* is fully cultivated, but very bare of trees. A few very fine hedges show how well they would thrive, if all the fields were inclosed. Towards *Kanya-uru* large proportions of the fields are unoccupied, but the country is better wooded. Much of the soil is poor, and all at any distance from the *Noyel* is dry-field.

Nov. 2. Hedges of the *Euphorbium antiquorum*.

2d *November*.—I went ten *Malabar* hours' journey to *Avanasi*, the residence of a *Tahsildar*. The country looks well; about one half of the arable lands being under cultivation, and many of the fields being surrounded by good hedges, especially those of the *Elanda Moula*, or *Euphorbium antiquorum*. This kind of hedge requires to be annually repaired, by inserting cuttings in the places where old plants have decayed; but large cuttings being taken, and supported by *Bamboos* and thorns, they become immediately a fence sufficient against cattle.

Rude cultivation.

The principal cultivation here is *Horse-gram* (*Dolichos biflorus*), with which very little trouble is taken. The ploughing is so rude, that hardly any of the bushes are overturned; and the field at a little distance appears as if it were waste. Many bushes resist even the repeated ploughings given to the fields of *Cambu*, but they are soon overtopped by this vigorous plant.

Face of the country.

In the vicinity of *Avanasi* are many *Palmira* groves, which in a country so naked give it a good appearance. Here there are two reservoirs for watering rice-ground. The one receives all its supply of water from the rain which it collects. The ground irrigated by this tank amounted to eleven *Canducas*, equal to twenty-two *Cheis*, or twenty-nine acres; but, owing to its being out of repair, it now supplies only ten *Cheis*. The other reservoir receives a supply

1800. Nov. 2.

of water from a rivulet called the *Semudir*, which, after giving a supply to another large reservoir, falls into the *Noyel* at *Tripura*. The dam turning the water from the *Semudir* into the reservoir at *Avanasi*, is in such bad repair, that the supply is deficient, and thirty-two *Cheis* only are at present cultivated, of the eighty which formerly were irrigated.

Avanasi.

Before the invasion of General Meadows, *Avanasi* contained two hundred houses, which are now reduced to about fifty, that are chiefly inhabited by the *Bráhmans*, musicians, and dancers belonging to a temple of *Siva*. These people pretend, that their temple is equal in sanctity to the celebrated *Baranasi* at *Kàsi*; but this pretension is laughed at by their neighbours. In this district there are many weavers, *Coicular, Jadar*, and *Parriar*.

Sheep and goats.

Many sheep are bred throughout *Coimbetore*, and especially in this district. Under the term *Bacri*, the Mussulmans here include both the long-legged goat and the sheep. The former, in the native language of this country, is called *Veladu*; of the sheep there are in this place two kinds, the one called *Curumbar*, and the other *Shaymbliar*. The goats here are greatly inferior to those above the *Ghats*; but the sheep, though small, are of a good quality, fattening readily, and making most delicious meat. Even grass-mutton may be had here tolerably fat; for the pasture, although it looks very bare, seems to be more nutritious than that on the banks of the Ganges, where no tolerable mutton can be reared without the assistance of grain. Even the Mussulman officers never thought of fattening their sheep with grain, and indeed made very little difference between fat and lean mutton. A good female goat (*Veladu*), or a sheep of either kind, costs from 4 to 3 *Fanams*, or from 1*s*. 11¾*d*. to 1*s*. 5¾*d*. A good wether costs from 6 to 5 *Fanams*, or from 2*s*. 11¾*d*. to 2*s*. 6*d*.

Curumbar sheep.

The *Curumbar* (Plate XVII, Figs. 42, 43) is a short bodied sheep, with a short small tail, like that of a hare, or goat: the rams have short horns turned back, and their ears are very short and pendulous. The ewes seldom have horns. The wool is thick and curly, and has little or no hair intermixed with it. Here they are in general white, with black heads; but above the *Ghats* they are frequently altogether black. It is of the wool of this kind only that blankets are made. They are shorn twice a year.

Shaymbliar sheep.

The *Shaymbliar* (Plate XVIII, Figs. 44, 45) is of a thinner make than the *Curumbar*. Their horns and tails are similar; but their ears are longer, and their wool is very scanty, their principal covering being hair. In this country they are generally of a reddish brown colour; but in *Mysore* they also are most commonly black.

Management of sheep.

Both kinds lamb once a year from the 15th October to the 15th of November. Twice a day, during the two following months, about ¼ of a *Seer*, or about seventeen cubical inches of milk, are taken from each. The long-legged goat gives double that quantity for three months after each kid, and breeds twice a year. The milk of

CURUMBAR RAM AND EWE.

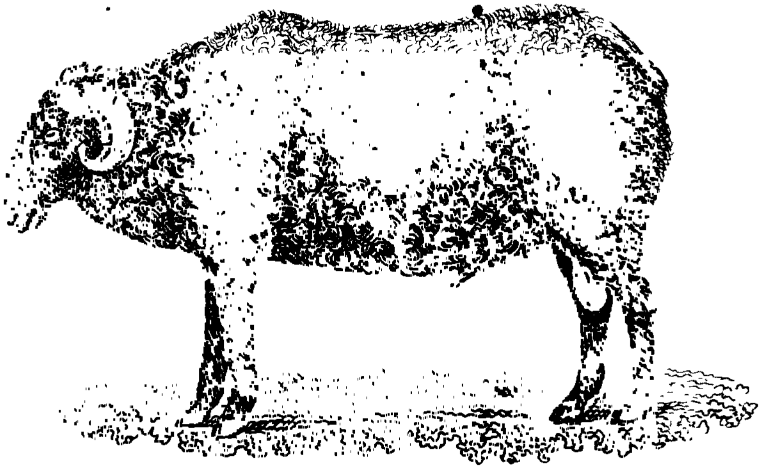


Fig: 42.

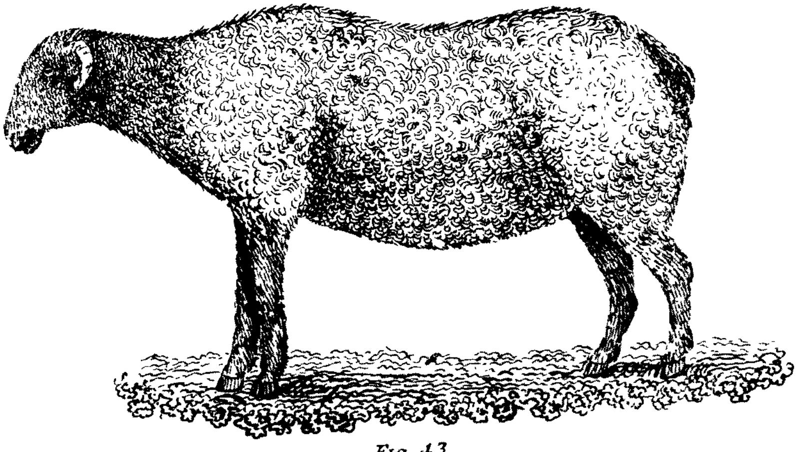


Fig 43.

G. PACZENSKY LITH

SHAYMBLIAR. RAM AND EWE.

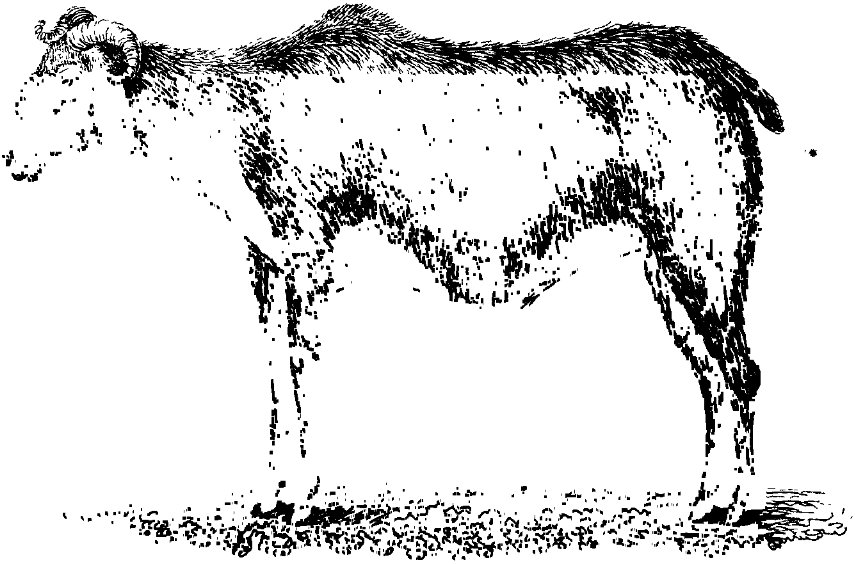


Fig 14

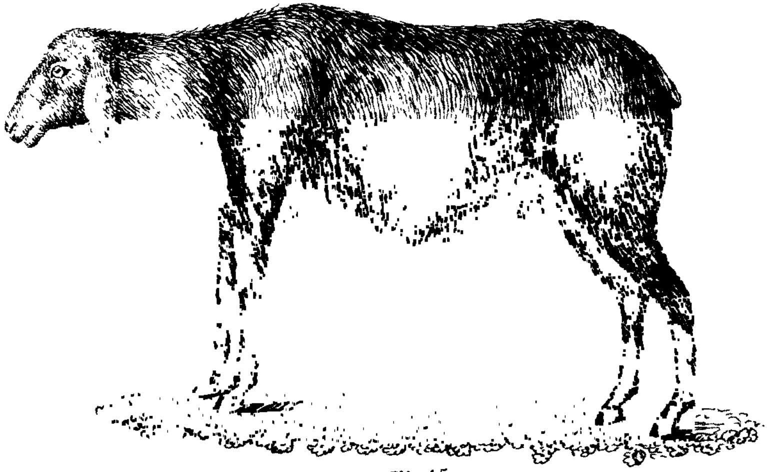


Fig 15

C. PALZENSKY LITH

1800. Nov. 2.

all the three, together with that of cows and buffaloes, is mixed for making butter. My Bengal servants acknowledge, that both the *Ghee* (boiled butter) and curdled milk of this country are superior to those of their own, where a preference is given to unmixed cow's milk. Wethers of all the three kinds are made by bruising the testicles of the animals when they are two years old, and never while they are young: the natives prefer the meat of the goat to that of the sheep, and the meat of the *Shaymbliar* to that of the *Curumbar;* which is directly in opposition to the taste of most Europeans. Owing to this, however, the cultivators in general keep only the goats and *Shaymbliars;* while the *Curubas,* or weavers of blankets, keep the *Curumbars,* as these only can supply them with wool.

In *Coimbetore* no kind of cattle are housed at any season. Previous to the ploughing season, they are always folded on the lands that are to be cultivated. In order to increase the quantity of manure, the farmers every where keep sheep and goats; but it is chiefly in this neighbourhood, that the *Curubas* pasture their flocks of *Curumbars.* The *Curubas,* who by the Mussulmans are called *Donigars,* are all of *Karnáta* extraction, and in *Coimbetore* never cultivate the ground. Their sole occupation is feeding their flocks, and weaving their wool into coarse blankets; none of which made here, exceed in value four *Vir'-Ráya Fanams,* or 1s. 11¾*d.* Each man possesses from fifty to one hundred sheep, which he pastures on the fields all day without paying any rent; and at night he folds them on the arable lands of the cultivators, who might each give a *Bulla* of grain to the proprietor of one hundred sheep for the manure. Every family of the *Curubas* pays a poll tax, and there is a duty on their blankets.

Curubas, or shepherds.

3d *November.*—I went five *Malabar* hours' journey to *Tripura,* fording the *Noyel* at that town. The country is not so well occupied as that through which I came yesterday; and in every village there are many ruinous houses. The soil is rather poor, but the fields are well fenced. The *Noyel* is a river very inferior to the *Bhawání,* and was easily fordable, although much swollen by a very heavy rain that lasted all night. On crossing this river, I entered the district under Mr. Hurdis. *Tripura* is an open town, containing three hundred houses, with a large weekly market or fair. I observed, that the women here did not conceal themselves when their curiosity prompted them to view me as a stranger. This is also the case in all the country above the *Ghats*; but in the part of *Coimbetore* north from the *Noyel* river, the women in general ran out of my way, and satisfied their curiosity by peeping from behind walls and hedges, as is usual in the country of Bengal.

Nov. 3. Face of the country.

The *Tahsildar* of this district resides at a place called *Palar,* where there is a fort, but only thirty houses, of which fifteen are inhabited by *Bráhmans.* The district is fifteen *Malabar* hours' journey from north to south, and twelve from east to west. The

Tripura, or *Palar* district.

1800. Nov. 3.

Tahsildar met me with great readiness, to give me an account of his district. He says, that none of it is absolutely waste; as the fields that are not cultivated pay a trifle as rent for grass. The country suffered little during the invasion of General Meadows, as tin lay at some distance from the routes of the contending armies. Last year many of their cattle died of the epidemic distemper.

Land-measure.

The land-measure differs every where in the province under Mr. Hurdis; and all the revenue accompts are kept according to an old measurement made by *Chica Deva Raya*. In this district no less than three different land-measures prevail. 1st, at *Palar*, thirty-two *Vaums* or fathoms make one *Russy, Caur*, or chain; which is, therefore, two hundred and sixteen feet. Three chains by two make a *Bulla-sowing*, which is $6\frac{426}{1000}$ acres. 2dly, at *Madupura hobly*, the *Bulla* is a square of sixty-four *Vaums* each side, or contains 4·284 acres. 3dly, at *Tripura*, forty-eight *Vaums* square make a *Bulla-land*, equal to 2·41 acres.

Dry-measure.

The *Mau*, or *Candaca* of watered land, is equal to two *Cheis* of the new measurement, or contains 2·644 acres.

The measures of grain also vary extremely. The *Puddy* varies from 64 to 72 *Rupees* weight of grain, or from $56\frac{83}{100}$ to $63\frac{96}{100}$ cubical inches: four *Puddies* make one *Bulla*, sixteen *Bullas* make one *Morau*, six *Moraus* make one *Podi*, which therefore varies from about $10\frac{15}{100}$ to $11\frac{42}{100}$ bushels.

Weights.

The weights near this are every where the same. 8 *Rupees*=1 *Pull*, 3 *Pulls*=1 *Seer*=0·6067 lb.; also $33\frac{1}{3}$ *Seers*, or 100 *Pulls*, are =1 *Tolam*=$20\frac{1}{4}$ lb.

Money.

Here is established a *Niruc*, or regulation, by which all coins have a certain value affixed to them; and at this rate they are received in the payment of the revenue; but in dealings between private persons attention is not paid to this rule. Accompts are commonly kept in *Chucris*, or *Canter'-Raya Pagodas*, and *Fanams*; but the coins commonly current are *Pondichery* and *Sultany Rupees*, and *Vir'-Raya Fanams*.

Rice.

On the rice land in this neighbourhood there is only one crop, which is sown after the sprouted manner, from between the 12th of July and the 18th of August. The land is watered partly from reservoirs, and partly from canals, which are brought from the *Noyel* by dams. It lets for from 9 *Chucris* to $4\frac{1}{2}$ for the *Candaca*, or for from 1*l*. 1*s* 3*d*. to 10*s*. $7\frac{1}{2}$*d*. an acre. The dams on the *Noyel* are said to be 32 in number. Of these four were in this district; but two of them have been so long ruinous, that no accounts remain of the quantity of land to which they gave water. Owing to the want of repairs, rather more than a third of the land formerly watered by the two remaining dams, is now uncultivated. The water from some of the dams on the *Noyel* is applied directly to the fields from the canals; in others, it is previously collected in reservoirs, in order that no more ground may be cultivated than the supply of water is adequate to irrigate.

For six years past there has been a great scarcity of rain, which has injured considerably the cultivation of the dry-field. About $\frac{3}{8}$ of what was formerly cultivated is now neglected; and for pasture it has always been customary to leave some of the fields fallow. The whole, however, are now let; but the rent given for those which are in grass is very trifling. The greatest article of cultivation here is *Colu*, or the *Dolichos biflorus*, called *Horse-gram* by the English of Madras; next to that, about equal quantities of *Cambu (Holcus spicatus)*, mixed with *Bullar* (*Dolichos Lablab*), and of *Sholum (Holcus sorghum)*; next to those, *Upum* cotton. The other articles cultivated on dry-field are inconsiderable. 1800. Nov 3. Dry-field.

The produce of a *Bulla* land, *Palar* measurement, is stated to be 200 *Tolas* of cotton, with the seed, or about 629 pounds an acre.

Cambu seed per *Bulla*,	52	*Bullas* produce	20 *Podis*.
Bullar	16	... .	$2\frac{3}{4}$
Cambu seed per acre,	$0\frac{956}{1000}$	bushel, produce	$35\frac{55}{100}$ bushels.
Bullar..................	$0\frac{294}{1000}$	....	$4\frac{82}{100}$
Seed	$1\frac{25}{100}$ bushel.	Produce	$40\frac{43}{700}$

Sholum seed per *Bulla*, 56 *Bullas*; produce 28 *Podis*.
Ditto per acre,............ $1\frac{3}{100}$ bushel; ditto $49\frac{70}{100}$ bushels.
Colu seed per *Bulla*, 64 *Bullas*; produce 10 *Podis*.
Ditto per acre, ... $1\frac{17}{100}$ bushel; ditto 17·77 bushels.

This is the produce of a good soil, as stated by the *Tahsildar*; but it seems to be over-rated.

A farmer who has four ploughs, wrought by four men and eight oxen, and who occasionally hires women labourers, can cultivate with dry grains four *Bullas*, *Palar* measurement. This is at the rate of rather less than six and a half acres for a plough. Extent of a plough-land.

The quantity of ground cultivated as garden, and watered by the *Capily*, is in this district very considerable. Gardens watered by the *Capily*.

In *Palar* and *Chinghery* subdivisions	180 *Bullas*,	or 1156 acres.
In *Maduparu*...........................	187 ditto,	or 801 ditto.
In *Tripura*	159 ditto,	or 383 ditto.
		2340 acres.

It produces *Sholum* (*Holcus sorghum*), *Cambu* (*Holcus spicatus*), *Kevir* (*Cynosurus corocanus*), *Meti*, or fenugreek (*Trigonella fœnum græcum*), wheat of the *Hotay* kind (*Triticum spelta*), *Jiray* and *Danya*, two of the carminative seeds, tobacco, garlic, onions, *Tenay* (*Panicum italicum*), *Banguns* (*Solanum melongena*), and capsicum. Almost every farmer cultivates some of this ground.

The whole land in this district is said to be arable; but certain of the poorest fields are set aside for pasture, and pay a small rent. Some of them continue always in grass; others are alternately cultivated for *Horse-gram* (*Dolichos biflorus*), and produce grass Four *Bullas* of *Palar* measurement ($25\frac{3}{4}$ acres) are reckoned sufficient pasture for 20 oxen. In the dry season, they must be either sent Pasture.

1800. Nov. 3.

to the hilly country, or fed with the straw of *Sholum*, or *Cambu*, the two species of *Holcus* cultivated in this country.

Rent.

A man who has four ploughs, four or five servants, with occasional labourers, and sixteen oxen, is said to cultivate $\frac{1}{2} + \frac{1}{8}$ *Bulla* ($4\frac{163}{1000}$ acres) of garden, and $3\frac{3}{4}$ *Bullas* ($24\frac{1}{10}$ acres) of dry-field, and has $1\frac{1}{2}$ *Bulla* $9\frac{64}{100}$ acres) of pasture: in all, 37·9 acres: for this he pays 1220 *Sultany Fanams* a year, which would be at the rate of 1*l.* an acre for the average rent of the whole district. Another man is said to have $\frac{3}{4}$ *Bulla* ($4\frac{82}{100}$ acres) of garden, 1 *Bulla* ($6\frac{426}{1000}$ acres) of dry-field, and $\frac{1}{2} + \frac{1}{8}$ *Bulla* ($4\frac{163}{1000}$ acres) of pasture; for which he pays 850 *Fanams* a year, which is at the rate of 1*l.* 14*s.* 5*d.* an acre. Both these statements were given me by the *Tahsildar*, with much seeming accuracy, from the public accompts; but they appear to me perfectly absurd. He was entirely a man of paper, and came prepared to show long statistical accompts, on which, it seemed to me, no reliance could be placed.

Want of curiosity in the natives.

I did not wonder at the *Tahsildar* being ignorant of the neighbouring country, as he was not a native of the place; but in the whole town he could not find a person that could inform me of the place where the iron sold in their weekly markets was made: all agreed, that it came from the neighbouring district, called *China Mali*; but every one differed concerning the village.

Nov 4. Face of the country.

4th *November*.—I went ten *Malabar* hours' journey to *Tallawai Pallyam*, as being the most likely place to find the iron forges; but in this I was disappointed, no iron having been ever made there. Some parts of the country through which I passed were well cultivated, while others were quite waste. Although the soil is in general poor; yet traces remain to show that the whole has once been cultivated; and there are many excellent fences even in places where the fields are waste. The quantity of rice ground is very small, and I saw none of it cultivated, although I passed under the bank of a large reservoir, containing much water. I passed another large reservoir, with a stream of water running through it; but its bank was broken. The canals from the *Noyel* and its branches are very small, and would be employed to most advantage in filling reservoirs. As I approached *Tallawai Pallyam*, I saw some small conical hills scattered through the country, which derives its name from that circumstance, *China Mali* signifying *little hills*. *Tallawai Pallyam* is a poor village without a shop, and contains only twenty houses. The cultivators say, that for five years past there has not once been enough of rain to fill their tank, and this has been the case with a great part of the province. The produce of dry grains during the same space of time has not been more than one half of the usual quantity.

Languages.

The names of plants in *Coimbetore* are quite different from those given to the same at *Tritchenopoly*, although in both countries the language of the *Tamuls* is spoken. The *Tamul* of *Coimbetore* is perfectly intelligible to my Madras servants, although natives of

a different *Désa*. Among the Mussulmans it is called the *Arabi* language, and their own northern dialect is here called the *Asmani*. 1800.

5th *November*.—I went a short stage to *China Mâli*, and by the way examined a forge for smelting iron, at a village named *Cottumbally*. It is wrought by the low people called *Siclars*; and the plan is nearly the same with that of the forges above the *Ghats*; but it is in every respect more miserable. The furnaces are built in the open air; so that in the rainy season they cannot be used, and the bellows, being made of a goat's skin, give very little wind. The man who works it sits on a stone, and, holding the bag between his legs, presses down the end with his right arm, and raises it with the same. The bag at each time is not half emptied, and in fact a pair of common kitchen bellows would give as much wind. The furnace has a lateral slit, close to the ground, for letting out the vitrified matter. The iron is taken out in front. The furnace is first filled with charcoal, then a small cupful of black sand is put on the top. As it burns down a scoopful of charcoal and another cupful of sand are added; and this is continued from early in the morning until three or four in the afternoon, when a mass of iron is formed and removed; and this is the whole day's work. The cup contains about half a pint, and the scoop about three quarts; so that the expenditure of fewel is immense. The mass of iron is very imperfectly fused. The sand is found in the channels of little torrents, which wash it down from the hills in the rainy season. Much of it, I am told, comes from a village called *Vir Sholavarum*, in *Canghium* district, which is on the south side of the *Noyel*. Nov. 5. Iron forges.

Some people of the *Shanar* tribe, who make iron near *China Mali*, tell me, that when they take the mass of iron from the furnace, they immediately cut it in two with a strong *Kudali*, or hatchet. In this state it is sold to the blacksmiths, who by repeated heatings and beatings reduce each portion to a small bar. Four *Shanar* work at each furnace, every one performing a part at each stage of the business. In the rainy season they collect the sand. Then they make the charcoal; and finally, in an interval of about three months between the crop seasons of the *Palmira* and coco-nut palms (*Borassus flabelliformis* and *Cocos nucifera*), they smelt the iron. They pay a thirtieth part of the iron smelted to the government, besides a duty for permission to cut timber for fewel.

At almost every village in the *Perinduru* district, iron is also smelted from black sand.

Throughout the country watered by the *Noyelar*, the *strata* are vertical, and composed in general of aggregate stones in a slaty form. The *strata* run nearly east and west; and in many places, especially near rivers or torrents, have been overflowed by the *Tufa calcaria*, already frequently mentioned. The sporadic concretions usually found above the *Ghats*, and the great diffused masses found in *Coimbetore*, seem to consist exactly of the same materials. The whole calcarious matter, however, in *Coimbetore*, is by no means Strata near the Noyelar.

1800 Nov 5. in large beds; many sporadic concretions are every where to be found.

Face of the country. The country through which I passed to-day, except where occupied by the small conical hills, is nearly in the same state with that described yesterday. Although the people complain of a want of rain, I passed a large reservoir full of water, which is not applied to irrigate the fields.

Hedges of *Mulu-kilivay.* Many of the hedges here, and in other parts of *Coimbetore*, are made of a thorn called *Mulu-kilivay.* It seems, from its habit, to be a *Rhus*; but, not having found the fructification, I am very uncertain concerning its place in the botanical system. It makes a very good fence: cuttings, three or four cubits long, are put in the ground between the 12th of March and the 10th of April. The ends are buried in the earth about a span, and very soon shoot out roots. From the moment it is planted, it forms a fence against cattle; but seems to require a better soil than either the *Euphorbium Tirucalli*, or the *Euphorbium antiquorum*, which are the most common hedges here, and will grow any where.

Low state of the arts. The people of *China Mali* are either unwilling to give me any information, or are in a beastly state of ignorance. In the whole town I could not procure means to weigh a piece of iron half the produce of one smelting. The inhabitants of this province, indeed, appear to be as far behind those of *Mysore* in intelligence, and in most of the arts, as these again are behind the natives of Calcutta or Madras. As is the case in every part of Bengal where arts have not been introduced by foreigners, the only one that has been carried to tolerable perfection is that of weaving.

Population. In the reign of *Hyder*, *China Mali* contained above 200 houses. These are now reduced to 125, of which 17 belong to *Bráhmans*, who keep 18 houses of dancing-girls and musicians, leaving 90 houses for those who are supported by honest industry. Of these, 41 are inhabited by weavers, 5 by shop-keepers, and 7 by cultivators.

Small-pox. The small-pox has been lately raging in the town, and is said to have proved fatal to 100 persons; a very terrible mortality in so small a place! Inoculation is unknown to the natives; and the mention of it excites their astonishment and abhorrence. They trust for cure to the application of the leaves of the *Melia Azadirichta*, a tree that is sacred to the goddess *Marima*, who inflicts this dreadful distemper. The priest (*Pujári*) at her temple is a *Handy*, a person of very low caste; yet in these times of affliction he gets presents even from the *Bráhmans*. The disease having now stopped, a grand sacrifice is to be performed at night, in order to thank the angry deity for having restrained her wrath. In this, however, the *Bráhmans* do not join. The number of singers, drums, horns, and other powerful sources of noisy discord, which have been assembled for the occasion, leave me no room to hope for sleep.

Nov 6. Face of the country. 6th *November*.—I went five *Malabar* hours' journey to *Perinduru*. The soil of the country through which I passed is in general

poor, and not much of it cultivated. There are few fences, but a good many gardens of the *Palmira* tree, or *Borassus*. The *Tahsildar* says, that the whole rice-ground in the district is of very little extent. Two canals from the *Noyel* come through it. The one fills a reservoir, the water from the other is applied directly to the fields; but the extent watered by both means is inconsiderable. In the district of *China Mali* there is no rice-ground. In this district there is also much land watered by the *Capily*, and cultivated for what is called here *Tarkári*. The rent of such land is higher than that of dry-field. The *Tahsildar* says, that three-quarters of the district are now waste, owing to a want of people. To me it appears, that he over-rates the population greatly; but he says, that many of the waste fields are of a very poor soil; and, although they have been once or twice cultivated, they were found not to repay the labour bestowed on them, and have ever since been neglected. I doubt much the accuracy of this statement; for I see fields now cultivated, that are apparently of as bad a soil as those which are waste. By the way, I passed one village totally in ruins. The people say, that since the death of *Hyder* they have not had one year with a proper fall of rain. This year there has been abundance, but it came too late by two months. 1800. Nov. 6.

In this district there are about 800 looms. *Perinduru*, the chief town, contains at present 118 houses, of which 24 are inhabited by *Bráhmans*, most of whom are attached to a temple. It has a mud fort, which is not inhabited; and there are many ruins in the town. The temple had formerly lands producing 10,000 *Gópály Fanams* (139*l.* 13*s.* 3*d.*) a year. It is now allowed 1018 *Rupees* (103*l.* 1*s.* 4½*d.*) a year to support its establishment. The village gods have small *Enams*, or lands for which they pay half-rent. There are besides lands, belonging both to Mussulmans and *Bráhmans*, dedicated to the service of god; and these lands are either free, or pay a very trifling rent. The Mussulmans, on account of their lands, are bound to perform certain ceremonies; but the *Bráhmans* may do as they please. These free lands (*Enams*) may be mortgaged by what is called *Bhógyam*: the money is advanced for a certain term of years, the lender taking the produce of the land for interest; and the property is entirely forfeited, if at the stipulated time the money be not repaid. By this means, as is usual all over India, the lands originally intended for the support of religion are now perverted to quite different purposes. *Perinduru.* Lands granted for the support of worship.

7th *November*.—I went eight *Malabar* hours' journey to *Erodu*, or, as it is called in our maps, *Eroad*. The country though which I passed is in a state similar to that between *China Mali* and *Perinduru*, and contains no rice lands. Nov. 7.

Erodu has a large mud fort, occupied by a battalion of *Sepoys*, which in this part of the country, now procures a ready supply of recruits. *Tippoo's* soldiers now begin to enter readily into the Company's service, the late augmentation of the *Sepoys'* allowances *Erodu.*

1800. Nov. 7.

having had a most excellent effect. In the government of *Hyder* the suburb contained about 3000 houses. *Tippoo's* government had reduced them one-third part, and the whole was entirely destroyed during the invasion of General Meadows. It is now rising up again, and contains about 400 houses. The situation is fine, and healthy; and the place will probably soon attain its former importance, its centrical position rendering it very fit for a military station. The weavers in this district amount to 2050 persons, *Coicular, Jadar,* and *Parriar.* These last are said to make the best cloth; but the whole is very coarse.

Irrigation by a fine canal.

The canal, coming by *Erodu* from the *Bhawání,* is an excellent work, and waters a narrow space of ground fifteen *Malabar* hours' journey long, and of various breadths. At this place the canal is carried over a small rivulet by means of an aqueduct. It is said that formerly it extended all the way to *Caruru,* and was carried over the *Noyel* river by means of an aqueduct, that must have been a great work. The whole is said to have been made by a *Vaylalar* farmer, named *Caling Ráya,* who being a rich man, and of great influence, raised from among the people of his caste a sum sufficient for the purpose. This was more than 400 years ago. His family is extinct, and never seems to have received any reward in lands on account of the grand work that he completed. The lands watered by it at present amount to 1045 *Mau,* or *Candacas,* which have been found to measure from 2 to 3 *Cheis* each; and, taking the medium, the whole will be 3459 acres, of which about 83 only are waste. In this district the waste dry-field amounts to 400 *Bullas,* or about 1713 acres.

Nov. 8.

8th *November.*—I remained at *Erodu* and procured the following statements from the *Tahsildar,* a very intelligent *Bráhman.*

A *Mau* or *Candaca* of watered land is here so much as will sow 100 *Seers* of rice in the sprouted seed cultivation. The *Seer* is equal to 80 *Rupees'* weight, and therefore the quantity of seed for an acre will be very little less than one bushel. The best land lets at 250 *Sultany Fanams,* and the worst at 60 for the *Mau*; which is at the rate of from 2*l.* 7*s.* 1½*d.* to 11*s.* 4*d.* an acre. Both sprouted seed and transplanted cultivations are in use, and the former is most prevalent. One kind of rice called *Muaghi* requires eight months to ripen, and is sown between the 13th of July and the 19th of August. No other crop can follow it in the same year. In a good crop it produces 30 *Mau* from a *Candaca* land, or about 30 bushels an acre.

The other kinds admit of two crops in the year; producing in both, when they are good, from 45 to 49 bushels an acre. The first crop is of a kind of rice called *Anadanum,* which is sown between the 12th of May and the 12th of July, and ripens in five months. It produces about 25 bushels an acre. Three kinds of rice, *Sambau, Déva Ráya Sambau,* and *Shindalay,* are sown as a second crop, between the 14th of November and the 10th of January, and ripen

in six months. The first in a good crop produces 24 bushels, the two latter about 20 bushels an acre. 1800. Nov. 8.

Difference in the produce of sown and transplanted rice.

Although the supply of water here is equally good and regular with that at *Nala Ráyana Pallyam*, and the produce here is very much less than at that place, yet we need not thence conclude that the statements given at the two places are erroneous; for the greater fertility of the rice ground at *Nala Ráyana Pallyam* may arise from the transplanted cultivation having been there adopted; while here the sprouted-seed is still retained, the inhabitants not having been forced by a high rent to exert themselves.

Dry-field.

The dry-field here lets for from 40 to 10 *Sultany Fanams* the *Vullam*, which is of the same extent as that of *Coimbetore*. The rent for the acre is therefore from 5*s*. 10*d*. to 1*s*. 5¾*d*. In the following Table will be seen an estimate of the seed and produce of one *Vullam*, and one acre, cultivated with the different articles raised on this kind of ground.

Table explaining the cultivation of dry-field at *Erodu*.

	Of one *Vullam*.		Of one Acre.	
	Seed.	Produce.	Seed.	Produce.
Cambu, or *Holcus spicatus*...	6 *Vullams*	2 *Podis* ...	Bushels dec. 0·1852	Bushels dec. 5·926
Muchu-cotay, or *Dolichos Lablab*... ...	1 ditto ...	2 *Moraus*	... ... 0·0308	... ... 0·247
Total	... ...	... ...	... ... 0·216	... ... 6·173
Sholum, or *Holcus sorghum*..	6 *Vullams*	8 *Moraus*...	... ... 0·1852	... ... 0·988
Tut' Eilu, or *Sesamum*	¼ *Vullam*	6 *Vullams*	... ... 0·0077	... ... 0·185
Total.....	... ...	... ...	... ... 0·1929	... ... 1·173
Shamay, or *Panicum miliare*	6 *Vullams*	8 *Moraus*	... ... 0·1852	... ... 0·988
Wulindu, or *Phaseolus minimoo*...	6 ditto ...	3 ditto ...	... ... 0·1852	... ... 0·37
Pacha Pyru, or *Phaseolus Mungo*.. ...	6 ditto ...	3 ditto ...	... ... 0·1852	... ... 0·37
Tovaray, or *Cytisus Cajan*	3 *Puddies*...	1 ditto ...	... ... 0·00231	... ... 0·123
Nadum Cotton.. ...	1 *Tolam* ...	5 *Tolams*	... lb. 4·7619	... lb. 23·8095

No *Upum* cotton is raised here. The produce of the *Sholum*, *Shamay*, &c., seems to be greatly under-rated.

Capily gardens.

The garden ground watered by the *Capily* lets for from 260 to 30 *Sultany Fanams* a *Vullam*, or from 37*s*. 10½*d*. to 4*s*. 4½*d*. an acre.

1800. Nov. 8

The chief articles of produce in them are as follow:

Sholum, or *Holcus sorghum.*

Seed per *Vullam* 6 *Vullams*. Produce in good ground 4 *Podis*.
Ditto per acre $0\frac{1852}{10000}$ bushels. Ditto ditto - $11\frac{851}{1000}$ bushels.

Kevir, or *Cynosurus corocanus.*

Seed per *Vullam* 6 *Vullams*. Produce in good ground 4 *Podis*.
Ditto per acre $0\frac{2}{10000}$ bushels. Ditto ditto - $11\frac{851}{1000}$ bushels.

Tobacco.

Produce per *Vullam*, in good ground ... ... 7 *Tolams*.
Ditto per acre ... ... 49½ lb.

The produce of this kind of ground seems also to be greatly under-rated by the *Tahsildar*.

Palm gardens.

In the beginning of *Tippoo's* reign there were here a few plantations of coco and *Betel* palms; but they have since been ruined. Orders have now been given to plant 20,000 of these palms, and 100,000 *Palmiras* (*Borassi*). In a country so bare of trees, this last is very useful for building. In a good soil it grows up in thirty years, in a bad one it requires fifty.

Nov. 9. Irrigation by canals.

9th *November*.—I went a very long stage, called ten *Malabar* hours' journey, to *Pashar*. The canal from the *Bháwáni* continued near my route on the left, and goes on three *Malabar* hours' journey farther, to a place called *Colanelly*. The high ground on my right was in general very poor. Of what is tolerably good a large proportion is cultivated. *Pashar* is an open village, containing 130 houses, of which 40 are inhabited by *Bráhmans*. There is, however, only one small temple that has a *Bráhman Pújári*, or priest. The others have betaken themselves to honest industry, and rent the lands which they formerly held in *Enam*; that is to say, almost the whole rice-ground belonging to the place. They are said actually to have put their hands to the plough. Great complaints are made here of a want of rain.

Industrious *Brahmans*.

Rocks of schistose quartz.

I observed near *Pashar* very large rocks of white quartz, in which it is evidently disposed in plates, like schistus, from one quarter of an inch to one inch in thickness, standing vertically, and running east and west in the direction of the common strata of the country.

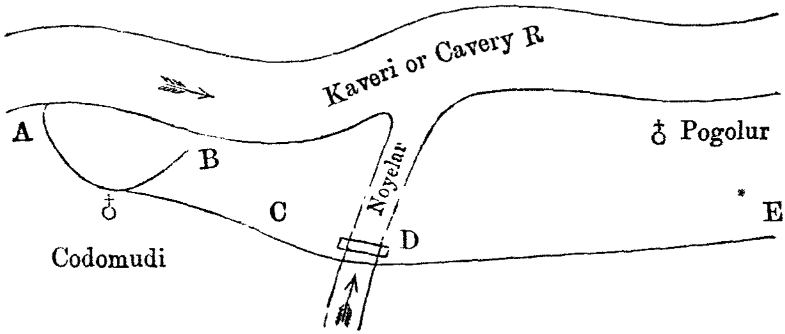
Nov. 10 Face of the country.

10th *November*.—I went eight *Malabar* hours' journey to *Codo-mudi*, a town on the bank of the *Cavery*. The road is interrupted by several torrents, swelled much by the heavy rains. A great part of the route led me through a country fully cultivated and inclosed; and although not so well wooded as England, yet I think, on the whole, the most beautiful that I have seen in India. The *Cavery*, which at present is a noble river, and many hills scattered through the country, add much to the beauty of the scenery. The soil is however in general poor, and near *Codo-mudi* many of the fields are waste. *Codo-mudi* has a temple, said as usual to be of great antiquity, and provided with an establishment of 11 *Bráhmans*, and 21 musicians and dancing-women. It is a poor building; but, this

being a holiday, it was crowded with multitudes of all ages and both sexes, many of whom were prostrated before the images. The houses in *Codo-mudi* are 118, of which 28 are occupied by *Bráhmans*. It is a new town, and money has been advanced to assist the people to build houses. *Colanelly*, which we passed on the way, has been deserted. At this place a canal is taken off from the *Cavery*, without the assistance of a dam. A canal of this kind is called a *Corum*. In the dry season this is carried across the channel of the *Noyel*, and waters the fields near *Pogolur*. 1800. Nov. 10.

The *Brahmans*, who now live here, were formerly all *Vaidikas*, or men dedicated to religious meditation; and in *Hyder*'s government, lived on the opposite bank of the *Cavery*, where they had *Enams* or free lands. Having lost this property, they have been obliged to rent some lands, which they cultivate by means of their servants. *Enamdars*, or persons holding free lands.

11th *November*.—I went seven and a half *Malabar* hours' journey to *Pogolur*, in the district under the management of Mr. Hurdis. By the way, I visited the place where the *Corum*, or canal taken from the *Cavery* at *Codo-mudi*, is conducted over the river *Noyel*. In the rainy season, the water taken from the *Cavery* at A, in the annexed plan, is allowed to fall again into that river by the passage B; for the quantity of water in the *Noyelar* is then sufficient to supply the canal DE. But in the dry season, when the *Noyel* is absorbed by the sands of its extensive channel, the water of the *Cavery* is conducted to D by the canal A C D, and is conveyed across the channel of the *Noyel* by a temporary dam of earth (D), erected immediately below the course of the canal. Nov. 11. Irrigation Canals.



In *Pogolur* village, this canal supplied with water 200 *Canays*, or 265 acres of rice-land, besides much in some other places. The whole of the rice-lands are cultivated; and, according to the village accompts, three-fifths of the dry-field in *Pogolur* are also cultivated. *Pogolur* is a small village without shops, and contains only about one-half of the houses that it did in *Hyder's* government. Few of the fences near it are good; but there is much good soil, especially near the *Noyelar*. Appearance of the country.

The whole of the rice-lands are occupied by the *Bráhmans*, to *Enamdars*.

1800. Nov. 11. whom they formerly belonged in *Enam*, or free gift. *Tippoo* made them pay a moderate rent of four-tenths of the produce. Last year this was converted to money, at the rate of 22 *Rupees* for the ten *Canays*, which is about 3*s*. 5¼*d*. an acre. Their *Enams* may therefore be considered as still valuable property. The rent for this year has not yet been fixed. One-half of these lands produce annually two crops of rice. Four *Bráhmans* hold the whole, and are called *Potails*. These let them out to other *Bráhmans*, who cultivate them by means of servants.

Nov. 12. Information procured from Major Macleod. 12th *November*.—I went to visit Major Macleod, the collector of the northern division of the *Coimbetore* province; and having passed the day with him at *Pramati*, on the east side of the *Carery*, I returned at night to *Pogolur*. The river here is about six or eight hundred yards wide, with a strong but smooth current. It is shallow; and, even at this season, not above forty yards of it exceed the depth in which a man could walk.

Hindu castes. Major Macleod is a gentleman extremely beloved by the natives under his authority, and very conversant in the manners of the *Hindus*, to whose prejudices he shows every reasonable attention. He thinks, however, that Europeans in general give too much credit to the assertions of the natives concerning the rules of their caste; which are commonly alleged as an excuse for declining any duty that is disagreeable. He does not permit the hereditary chiefs of castes to settle the disputes of their followers by fine or excommunication; and has had no difficulty in making persons be again received into society, who had been made outcasts owing to the pique or caprice of leading men. In cases of complaint against any one for his having infringed the rules of caste, he orders an assembly of the most respectable people of the tribe to meet in the public office before the *Tahsildar*, who inquires into the business; and, after having consulted the assembly concerning their real customs, decides on the nature of the guilt, and its appropriate punishment. Any person who is troublesome, and refuses to submit to the decision of the *Tahsildar* and assembly, is immediately banished from the district. Right and left hand sides. He has had no great difficulty in allaying the disputes between the right and left hand sides. He has caused arbitrators from both sides, men of prudence and temper, to meet in the public office, and there to come to an agreement concerning what the custom should be. A copy of this agreement is given to each of the parties, and another to the *Tahsildar*, who is ordered to enforce it both by fine and corporal punishment. When it has been necessary to divide any town into separate quarters for the two sides, the party insisting on any adversary's removing to his own quarter must build for him a new house. Any man may retire from his adversary's quarter whenever he pleases.

Tenures. Major Macleod says, that the custom of the country has always been understood to be, that no tenant could be turned out of his possession so long as he paid his rent. Under the former govern-

ment, however, the officers of revenue removed the tenants as they pleased, and gave the best land to their favourites. This will always be the case, wherever the principal officer of a province is not very alert in redressing injustice, and very accessible to the lower classes of inhabitants; which is rarely the case among the natives of rank. Every village had a register, containing a valuation of its arable lands, which is always said to have been made by some prince, or governor, and called by his name; there having, however, been no other copy than that in the possession of the village accomptant, there was no check upon him and the head-man. These officers therefore were constantly varying, for corrupt purposes, the rates of the different fields; and, if they took care to keep the total amount the same, they might make the assessment on the fields held by themselves and friends quite light, and lay what they ought to pay on their neighbours, or, on lands that were not occupied. Major Macleod thinks, therefore, that in justice no attention ought to be paid to these valuations; and accordingly, in the *Saliem* part of his district, has made a new valuation of the whole. He is also of opinion, that this valuation should only be continued for a specific number of years; at the end of which the government may have an option of increasing the rent, in proportion to the improvement of the country, and to the progressive diminution of the value of the precious metals. This he would do by laying a per-centage upon the whole, which seems to me liable to many objections. He admits, that in the course of a few years the present valuation must become an unequal tax; but he thinks that a new valuation at the end of every lease would be attended with great difficulty, and open a door for numerous abuses. Under the administration of a weak or corrupt collector, it no doubt would do so; but with such men as the collectors brought up under Colonel Read, I have no doubt of its being attended with the greatest benefit, both to the government and to the tenant.

1800. Nov. 12.

Division of crops.

Major Macleod thinks it impracticable for the government to avoid the most excessive embezzlement, in receiving rent by a division of the crops. It might be done by a petty *Polygar*, but not in any large government. When the Company obtained possession of the *Saliem* country, the rice grounds that are watered by the fine canals from the *Cavery* were rented by a division of the crops. At that time a great part of these grounds was waste, and the rents were low, and collected with difficulty. The changing them into a fixed revenue, to be paid in money, occasioned murmurs at first; but the whole lands are now cultivated; tenants are eager to procure them, and the revenue is greatly increased. In fact, the stimulus of rent raised with moderation, according to circumstances, is the best source of industry in every country, and hence contributes equally to improve the revenue and the condition of the tenantry.

Zemindars, and renters of districts.

At present, the whole public lands are held immediately of the government, and none are farmed out to collectors, or hereditary

1800. Nov. 12.

Zemindars. The former are always oppressors; and, although the latter give a security and ease in collecting the revenue, there can be little doubt, that hereditary proprietors of large landed estates are a political evil in a country governed by foreigners. The regulations introduced by Colonel Read for collecting the revenue, seem to me sufficient to secure the regular payment of more than can ever be procured from *Zemindars*; and I am persuaded, that any deficiencies must arise either from a neglect of duty, or from dishonesty in the collectors. I here allude to hereditary *Zemindars*, merely as affecting the revenue, and political state of the country: they must be considered as useful toward the improvement of agriculture.

Enams or lands rent free.

There are some small *Enams*, or private properties in land, but none of great extent. Major Macleod proposes, that the lands formerly belonging to the *Bráhmans* should be restored to them, at a rent somewhat lower than could be procured by letting them to the best bidder; but their extent, and the rent to be paid for them, should be defined in the usual manner. The *Enams*, as well as the pensions granted by *Hyder* and *Tippoo* to Mussulman establishments, have been continued. The *Enams* belonging to the *Gráma Dévatas*, or village gods, have been all measured, and valued on actual inspection by Major Macleod, who has reduced their size where they seemed more extensive than was necessary to support the expense of the usual ceremonies. The lands belonging to the temples of the great gods have been entirely reassumed; and in their stead monthly pay is given to the necessary attendants. On the whole, the quantity of *Enam*, or land not belonging to the public, is very small; but it is looked upon by Major Macleod as highly injurious. He allows, that it is better cultivated than the land belonging to the public; but this arises from the *Enamdars* letting the whole of their lands at a very low rent, and thus seducing away the tenants of the government. In the present state of the country, the *Enamdars* are content to get any rent, rather than allow their lands to be waste; and when the population recovers, they will raise their lands as high as the government does.

Village officers.

Major Macleod alleges, that the chiefs and accomptants of villages have no just right to the hereditary possession of their offices; and says, that it was always by means of bribery and corruption, that the son of a person who had been turned out for mismanagement, was permitted to enjoy his father's office. I admit the utility of Major Macleod's system; but am persuaded, that it is contrary to the customary law of the natives.

Condition of the people.

The cultivators and peasantry continue exactly in the same dress, and same houses, that they used in *Tippoo's* government, and have a prejudice against changes. Major Macleod thinks, that their women are beginning to wear more gold and silver in their ornaments than they formerly did. The merchants and manufacturers are evidently improving in their manner of living, are forsaking their pyramidical or conical huts, and are erecting tiled houses. To enable them

to do this, government, without charging interest, advances money, which is repaid by instalments. 1800. Nov. 12.

The manufacturers are now satisfied, that the stamp-tax will be on the whole easier to them, than the different duties on looms, houses, and transit, which it supplants; and, from the ease of collection, it will be more productive to government. The custom-houses which are at present farmed, do not in Major Macleod's opinion impede trade, and the revenue which they produce is considerable. Fixed rates are pasted up at every custom-house; and a copy is given to the *Tahsildar*, who is bound to protect every trader from delay or imposition on the part of the farmer. Stamp duty on clothes.

All disputes are settled in open court, by arbitrators mutually chosen; and these are not permitted to retire until they decide the cause, in order to leave no room for corruption and intrigue; against which, among the natives, it is necessary to guard with the utmost vigilance. This seems an admirable plan, and much superior to the commissioners in Bengal. In fact, the *Tahsildar*, with this assistance, seems fully adequate to manage the collection of the revenue, the police, and the judicial department; but without the active inspection of an intelligent superior, there is great room for abuse. Determination of civil causes.

The present state of the coin is a serious grievance, and bears heavy on the poor. Major Macleod thinks, that a uniform coinage, with pieces forming aliquot parts of each other, would be so willingly received by the inhabitants, that, without a murmur, they would, for new money, pay into the collector's treasury all their old coin, at such a discount as would defray the expence of the mint. The only difficulty in the whole measure would be, to procure a sufficient quantity of new coin. Coin.

The *Bagait*, or gardens watered by the machines called *Capily* and *Yatam*, are of great importance. This manner of cultivation enables a small extent of ground to support many people, and to pay a high rent; and it is less liable to fail, from a want of rain, than the common cultivation of the dry-fields. Major Macleod therefore advances money to every farmer who engages to dig a well. This advance is repaid in between eighteen months and two years. For the first year a garden pays only the rent which it did while cultivated as dry-field; in the second year, one half of the additional rent is laid on; and in the third year it pays the full rent. *Capily* gardens, or *Bagait*.

Where the water is near the surface, Major Macleod prefers the *Yatam*, as the cheapest manner of irrigating a garden; but where the water is far from the surface, he prefers the *Capily*. He has not however ascertained, by actual experiment, the relative advantages of these two machines. Machinery for irrigation.

13th *November*.—I went ten *Malabar* hours' journey to *Caruru*, or *Caroor*. A considerable proportion of the country is not cultivated, and there are very few fences. The soil is in general poor, with many projecting rocks, especially of pure white quartz, among which are found irregular masses perfectly pellucid. There is a Nov. 13. Appearance of the country, and *strata*.

1800. Nov. 13.

quarry near *Caroor*, of a stone called *Carum-gull*, or the black stone. It differs from the hornblende of *Mysore*, being mixed with felspar; but is used for the same purposes, and is called by the same name.

Caroor, or Caruru.

Caruru is a considerable town, situated on the northern bank of the *Amara-wati* river, and having at a little distance from it a neat fort, containing a large temple, and a garrison of *Sepoys*. The town contains 1000 houses. Its merchants seem, however, to be chiefly petty dealers, nor are the weavers in the place numerous.

Different denomination of land.

Lands now waste, but formerly cultivated, in this part of the country, are in the language of the *Tamuls* called *Tirsi*; by the Mussulmans they are called *Banjur*. The lands in cultivation are called *Sagwulli*. Lands not watered are called *Kiet*; and those which are watered are called *Danwudi*. In this district almost the whole of the latter are cultivated, and belong entirely to the *Bráhmans*. Last year one half of the dry-field was waste; the quantity that will be occupied this year is not yet ascertained. The proportion occupied by rivers, roads, rocks, woods, &c., in the opinion of the *Tahsildar*, does not exceed one-tenth part of the whole.

Irrigated land.

In this district there are below *Pogolur* two canals (*Corums*) from the *Cavery*, that water much rice-land, and are full throughout the year. Several canals for watering the ground are also brought from the *Amara-wati*, both by means of dams (*Anacuts*), and by simple canals, or *Corums*. The supply of water in this river does not always last the whole year; so that, in some seasons, there is only one crop of rice.

Sugar-cane.

In this district a great deal of sugar-cane is raised. It is cultivated nearly in the same manner as at *Bala-pura*, and ripens in ten months. A crop of *Ratoons* is sometimes taken, but it is very poor. Between every two crops of sugar-cane it is customary to take two or three crops of rice. Two thousand holes are formed in every *Canay* of ground, which is equal to 100 *Culies* of 32 *Adies* square. Three cuttings are put in each hole. In a good crop, a *Canay* of land produces of *Jagory* 120 *Tolams* of 27½ *Seers* of 28 *Rupees*. This is at the rate of only 8¼ cwt. from an acre. When cheap, the *Jagory* sells at half a *Rupee* a *Tolam* or 6*s*. 4½*d*. a hundred-weight. The whole value of the produce of an acre, at this rate, is 2*l*. 16*s*.; but the *Jagory* often sells at double the price here stated. A Mr. Campbell has lately undertaken to make the *Jagory* into sugar, and has received from the Company considerable encouragement. He advances 20 *Rupees* for every *Canay* of land which the farmers plant, and is to receive one-half of the *Jagory*. Out of this half he is to pay the rent to the government. The twenty *Rupees* are to be repaid him out of the farmer's half. The farmer's share is therefore one-half of the produce, and he receives money in advance to enable him to cultivate the land.

Nov. 14. Amara-wati.

14th *November*.—I went seven and a half *Malabar* hours' journey to *Cutamboor*, a small village without a shop. The river

Amara-wati is at least 400 yards wide; but its stream is very gentle, and almost always fordable. To-day it was about two feet deep. The channel is entirely of sand, and the banks are very low; so that, for watering the rice-grounds, canals (*Corums*) are easily taken from it. 1800. Nov. 14.

Near the river the rice-grounds are extensive, and fully cultivated. Farther on, the soil becomes poor, and has many large projecting rocks; but they do not rise high above the surface. There are few inclosures, and much of the dry-field is waste. The country south from the river *Noyel* is remarkably bare of trees. F[illegible] of the country

15th *November*.—I went seven and half *Malabar* hours' journey to *Arava-courchy*. The road passes through a pretty country; but the soil is poor, and there are very few inclosures. I saw very little cultivation; but the *Tashildar* insists that two-thirds of the whole of his district are cultivated, and the remainder pays a small rent for grass. To judge from what I have seen of the country, I should conclude that not more than a quarter of the dry-field is cultivated. Nov. 15.

The articles of any importance that are cultivated here on this kind of ground are about equal quantities of *Sholum* (*Holcus sorghum*) and *Cambu* (*Holcus spicatus*), with some accompanying legumes; a smaller quantity of *Colu*, or *Horse-gram* (*Dolichos biflorus*), and a small quantity of *Shamay* (*Panicum miliare*, E. M.), and nearly the same of cotton called *Nadum*. Dry-field.

The best dry-field lets here at 40 *Saltany Fanams* for the *Vullam* of 64 *Vaums* square; the second at 30; the third at 20; and the fourth at 10. The best grass land at 6 *Fanams*, the worst at 3. These, reduced to English money and measure, are as follow: Rent.

	s.	d.
One acre of arable land of the 1st quality lets for	5	10
2d ditto	4	4½
3d ditto	2	11
4th ditto	1	5½
One acre of the best pasture land lets for	0	10½
One ditto of the worst ditto	0	5¼

The produce of the best land is as follows: Produce.

Of *Sholum*, or *Cambu*, per *Vullam*	4 *Moraus*	per acre, bushels	5·63
with the legumes. *Muchu Cotay.*	0 10 *Vullams*	... ...	0·44
with the legumes. *Tata Pyru*,	0 10	... ...	0·44
with the legumes. *Mutu Cotay*,	0 10	... ...	0·44
	5 14	Bushels	6·95
Colu, or *Horse-gram*,	3	... ...	3·51
Shamay	2	... ...	2·82
Cotton	9 *Tolams*...	... ...	lb. 42½

In this district there are four dams (*Anacuts*) on the *Amarawati*; and these water the rice grounds of four villages, which are rented entirely by *Bráhmans*. Between *Cutamboor* and *Aravacourchy* are two torrents, that in the dry season contain no water. Irrigation.

1800. Nov. 15. The most considerable, named *Coduganar*, is not applied, in this district at least, to the purposes of agriculture. The other, named *Nunganji*, supplies two villages with water: one by the intervention of a reservoir, and another by means of a canal. The *Potails*, or renters of these villages, are *Sudras*. None of the rice-ground in this district produces annually two crops.

Measures. In every village of this district the measures differ; which seems to have been contrived purposely to enable the farmers, and lower officers of revenue, to confuse the accompts, and thus to defraud the government.

Arava-courchy. *Arava-courchy* signifies the seat of *Arava*, a person of the *Baydar* caste, who was the only inhabitant of the place, when a *Polygar* came from the north and built a town. This afterwards became subject to *Madura*, and then to *Mysore*; the *Curtur* or sovereign of which built near the town a neat fort, and gave it the name of *Vijaya-mangalam*, which by Mussulmans is called *Bijamangle*. About the end of *Hyder's* government, an English army, under the command of Colonel Laing, took the fort. His batteries were erected in the town, which was destroyed during the siege, and continued uninhabited until Mr. Hurdis took possession of the district. It now contains about 250 families, and a new market (*Bazar*) of well-built houses is rising up; but the people are very poor. The family of the *Polygar* who founded it has been long extinct. The tradition among the oldest *Bráhmans* here does not reach back to the time when this country was subject to the kings of *Vijaya-nagara*; but they have all heard of these princes. The inhabitants of *Arava-courchy* mostly speak the *Tamul* language; but there are among them some *Telingas*, probably introduced by the *Polygar*; for the *Veerpuchry Rája* and all the neighbouring *Polygars* are of *Telinga* extraction, and all originally came from the north. *Tamul*, it must be observed, is the proper national appellation of the *Sudras* of all the eastern side of the south end of the peninsula; and the *Prakrit*, *Bhasham*, or vulgar dialect of the country, is therefore called the language of the *Tamuls*. Both language and people are, by those of *Karnata*, called *Arabi* and *Tigular*. The *Bráhmans* of the *Tamuls* are called *Dravida*; and the dialect spoken by their families, although considered as a vulgar tongue, has a much greater resemblance to the *Sanscrit*, than the common *Tamul*; from whence it may be reasonably concluded, that these *Bráhmans* have originally come from a country where the *Sanscrit* was more prevalent; and, in fact, they are said to have had their origin at *Kalpi*, a town of *Hindoostan* proper, near the river *Jumna*.

Dialects.

Panchanga. In this part of the country, as well as above the *Ghats*, no *Bráhman*, except the *Panchanga*, or village astrologer, will condescend to act as *Purôhita* for the low castes. If the *Panchanga's* son can read, he always succeeds to the office of his father.

Vaidika Bráhmans. The *Vaidika Bráhmans* now act as renters for the lands which they formerly possessed in *Enam*. Even according to their account, they pay a lower rent than the *Sudras* do.

I found some of them possessed of a considerable portion of learning. These gave me a list of the fifty-six *Désas*, or counties of *Bharata-khanda*, and an explanation of what was meant by such of the *Désas* as they knew. I here give a copy of it, and annex another list given me by a learned *Bráhman* from *Sri Rangam*, the celebrated temple near *Tritchenopoly*. This man, having been a great traveller, is much better acquainted, than the others, with the local situation of the *Desas*. 1800. Nov. 15. *Bharata-khanda* and its division into 56 *Désas*.

List given by the *Bráhmans of Arava-courchy.*

1 *Anga.*
2 *Vanga.*
3 *Kalinga.*
4 *Kamboja.*
5 *Kamarupa*, (*Assam.*)
6 *Sawvira.*
7 *Sawvarashtra.*
8 *Maharashtra*, (*Marattahs*).
9 *Magadha.*
10 *Malava.*
11 *Nepala.*
12 *Kerala*, (*Malabar.*)
13 *Chera*, (*Saliem* and *Coimbetore.*)
14 *Chola*, (*Tanjore.*)
15 *Pandava*, (*Madura* and *Tinevelley.*)
16 *Panchala*, (*Panjab ?*)
17 *Bangala* (*Bengal.*)
18 *Gauda* or *Gauda.*
19 *Malayala*, (probably it ought to be read *Malayachala.*)
20 *Singhala.*
21 *Dravida*, or *Dravira*, (*Arcot*, *Madras.*)
22 *Karnata*, (*Mysore*, *Sira*, *Colar.*)
23 *Lata.*
24 *Marata.* (This probably ought to have been *Marahata.*)
25 *Nata.*
26 *Pulinda.*
27 *Andhray*, (*Nellore*, and the country north from *Madras.*)
28 *Húna*, Europe, (*Huns ?*)
29 *Dasarnada.*
30 *Bojay*, (*Vijaya nagara.*)
31 *Kuru*, (*Delhi.*)
32 *Gandhara.*
33 *Vidarbha.*
34 *Videha.*
35 *Banleka.*
36 *Barbara.*
37 *Kekaya.*
38 *Kosala*, (*Oude.*)
39 *Kanta.*
40 *Kirata.*
41 *Gurjara*, (*Guzerat.*)
42 *Hindu.*
43 *Tienkana.*
44 *Kankana.*
45 *Vankana.*
46 *Matsya.*
47 *Marthura.*
48 *Salra.*
49 *Chédi.*
50 *Sindhu*, (*Irán* or Persia.)
51 *Avanti*, (*Banares*, or *Káis.*)
52 *Mudday.*
53 *Yavana*, (Mecca).
54 *China*, (China.)
55 *Karushay.*
56 *Trikárta*, (a part of Arabia.)

List of the 56 *Désas*, according to *Náráyana Sastri* of *Sri Rangam.*

1 *Anga.*
2 *Vanga*, (country east from the *Brahma-putra* river.)
3 *Kalinda*, (*Vijaya-nagara.*)
4 *Kalinag*, (*Muttura Binderabund.*)
5 *Kamboja*, (*Thibet* or *Bootan*)
6 *Kásmira.*
7 *Sura*, (*Surat.*)
8 *Gurjara*, (*Guzerat.*)
9 *Barbara.*
10 *Murada.*

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11 *Gandhára.*
12 *Sawvira.*
13 *Sawvaráshtra.*
14 *Maharáshtra, (Marattahs.)*
15 *Mathura,* (a place north from *Oude.*)
16 *Magadha, (Gya, Patna, &c.)*
17 *Andhra, (Telingána.)*
18 *Nisháda.*
19 *Sindhu.*
20 *Dasárnada.*
21 *Málava,* (capital *Barodra.*)
22 *Nepála.*
23 *Panchála, Delhi, (Panjáb.)*
24 *Bangála,* (from *Boidinat* to the *Brahma-putra.*)
25 *Malayáchala,* (a hilly country producing sandal.)
26 *Chola, (Tanjore.)*
27 *Kerala, (Malabar.)*
28 *Singárá,* (perhaps *Síngala.*)
29 *Gauda, (Lakshmanapuram,* vulgo *Lucknow.)*
30 *Gotáki.*
31 *Karnátaka, (Mysore, &c.)*
32 *Karahátaka.*
33 *Marahataka.*
34 *Panáta.*
35 *Pandava.*
36 *Pulinda.*
37 *Kanta.*
38 *Trika,* (perhaps *Trikarta ?*)
39 *Trilavanti.*
40 *Avanti, (Ujina,* or *Ougein.)*
41 *Vidéha, (Janucapuram,* vulgo *Janucpour,* north from Bengal.)
42 *Vidarbha,(Denagepore, Rungpore.)*
43 *Kekaya.*
44 *Kósala, (Oude.)*
45 *Kankana.*
46 *Tienkana, (Coorg.)*
47 *Hurnay.*
48 *Matsya, (Benares.)*
49 *Bachya.*
50 *Makala.*
51 *Páká.*
52 *Vahlika,(Vahli-konda-puram,* or *Kishkinda,* south from *Arcot.)*
53 *Yavana.* Mussulmans.
54 *Lavakya, (Dwaraka.)*
55 *Drivéda, (Rameswara.)*
56 *Dravida, (Arcot.)*

These lists, as usual with all information received from *Bráhmans,* differ most essentially. It is clear, however, that *Bharata-khanda* contains all the habitable world, as far as was known to the authors of the books esteemed sacred among the *Hindus,* and is by no means applied to signify the country which we call *Hindustan.* Indeed, I have never been able to discover any name that the *Bráhmans* have for the country over which their doctrine has extended. They always describe it by a circumlocution, and say all the country between *Himavat-giri* and *Raméswara.* The *Bráhmans* speak of nine *Khandas* in this *Jambu Dwipa,* or world inhabited by men; but all that is said concerning them, *Bharata-khanda* excepted, seems to be the silly extravagance of a disordered imagination.

Bhagirathi, or *Ganges.*

Bharata-khanda is surrounded by a sea of salt water, and its most celebrated river is the *Bhágírathi,* called by way of eminence the *Gangá,* or river. It is only that part of the river which lies in a line from *Gangóttara* to *Sagara* that is holy; and that is named the *Gangá,* or *Bhagírathi.* The *Hoogley* river of European geographers, therefore, is considered as the true *Ganges;* and the great branch that runs east to join the *Mégna,* or *Bráhma-putra,* is by the *Hindus* called *Padma* (vulgo *Pada*) or *Padmawati,* and is not by them

esteemed equally sacred. Although the water of the whole river from *Gangóttara* to *Sagara* is holy, yet there are five *Tírthas*, or places more eminently sacred than the rest; and to these, of course, all pilgrims from a distance resort to perform their ablutions, and to take up the water that is used in their ceremonies. These *Tírthas* are, *Gangóttara*; *Haridwara*, or *Maya*; *Prayaga* (called by the Mussulmans *Elahabad*), *Uttara Janagiri*, a little below *Monghir*; and *Sagar*, at the mouth of what we call the *Hoogley* river. *Narayana Shastri*, who has been at all these places, says, that at *Gangóttara* three small streams fall down from impassable snowy precipices and unite into a small bason below, which is considered by the *Hindus* as the source of the *Ganges*, over which at that place a man can step. It is situated about twenty days journey north and west from *Haridwara* (*Hurdwar*); and the *Bráhman's* road lay on the west side of the river, until he came near *Gangóttara*. He observed no considerable stream joining the *Bhagirathi* from the east, until he came to the *Alikanandra*. *Prayaga*, however, is the most celebrated *Tirtha*, or holy place by water; as *Kasi* is the most sacred *Kshetra*, or place of worship by land. 1800. Nov. 15.

In the district of *Arava-courchy* are some families of Mussulman farmers. They were formerly *Candashara*, or persons holding lands free of rent on condition of serving as private soldiers. After the invasion by Colonel Laing, *Tippoo* abolished this kind of militia; and the persons who composed it continue to occupy the lands, but pay rent like other farmers. Mussulman cultivators.

16th *November*.—I went ten *Malabar* hours' journey to *Mulinuru*. The country is better enclosed, and less rocky, than that through which I came yesterday; but it is equally uncultivated. By the way I passed an iron forge, of the same structure with that seen in Major Macleod's district, and, like it, calculated to smelt black sand. At *Arava-courchy* I had been informed, that at *Mulinuru* I should find a market; but on coming up I found, that the whole place had been destroyed by an invading army, probably that under Colonel Fullarton, and that it has never since been rebuilt. All that remains is a small temple, which has got an establishment of *Bráhmans*, dancing women, and musicians. The neighbouring country is adorned with many plantations of the *Borassus*. The calcareous *Tufa* abounds at least as much on the south side of the *Noyel* as it does toward the north, and in some places covers the whole surface of the ground in continued masses. West from *Mulinuru* is a field of this kind, where the calcareous masses assume a botryoidal form. Nov. 16. Face of the country.

For some days the weather has become comparatively pleasant. It is very clear, and, although hot in the day and evening, is then by no means oppressive; while the mornings are delightful. Weather.

17th *November*.—I went a long stage to *Daraporam*. Near this are two fine canals, that water much rice-land in a good state of cultivation. The soil of the dry-field is poor, and but little of it is cultivated. Nov. 17. Face of the country.

1800. Nov. 17. *Daraporam.*

At *Daraporam*, or more properly *Dharma-puram*, is a large mud fort, the commandant of which, according to the report of the natives, agreed to surrender the place to Colonel Fullarton. As he wished, however, to make an appearance of resistance, some pioneers were sent into the ditch to undermine the wall; which they did very coolly, while over their heads the garrison kept up a tremendous fire. When the passage was open the firing ceased, and our troops walked in quietly, without any injury having been done on either side. Previous to this the town was very large; but it is now only beginning to recover from a state of ruin. Mr. Hurdis having made it the head office (*Cutchery*) of his district, it will soon increase. He has laid out the plan of a new town, in which all the streets will be straight and wide; and in this a good many new houses have been built. The inland situation of the place is, however, a great disadvantage; and in favourable seasons the cultivators cannot find a market for their grain.

Nov. 18.—20. Management of Mr. Hurdis.

18th to the 20th *November.*—I remained with Mr. Hurdis, a most intelligent and active young gentleman. He manages the disputes about caste, and those arising between the right and left hand sides, in the same manner as is done by Major Macleod. The nature, indeed, of the whole management of both their districts is nearly the same; and in place of a jealousy between them, as belonging to two different services, they live in the greatest cordiality, and the only struggle between them is an honourable emulation in the performance of their duty.

Speedy justice.

Both gentlemen make it a rule, that their *Umlahs*, or native officers, should not leave the court, until every cause that comes before it is decided.

Rents.

Mr. Hurdis thinks that the present rents are greatly too high; and, no doubt, the peasantry here, as well as in almost every part of India, are miserably poor. I am inclined to think, however, that other causes contribute more to this than the greatness of the rents. Mr. Hurdis says, that all the land which is not cultivated is by no means unlet (*Tiısi*); but owing to the want of rain, and of stock, the farmers are not able to cultivate the whole of what they rent. This, in my opinion, shows that the fields are by no means over-assessed; and that the farmers, if they would not grasp at more than they have stock to manage, might be in a much more comfortable situation. One great cause indeed of the poverty of the farmers, and consequent poverty of crops, in many part of India, is the custom of forcing land upon people who have no means of cultivating it. Thus all the lands are apparently occupied; but it is in a manner that is worse than if one half of them were entirely waste. I believe every intelligent farmer in England will say, that one acre fully improved will give more profit than two that are half cultivated.

Polygars.

The *Polygar* government Mr. Hurdis considers as highly oppressive to the peasantry, who are always squeezed by irregular means, although nominally they pay a low rent. The *Polygars*, he says,

were originally men who had the management of certain tracts of land, with all manner of jurisdiction over the inhabitants. Each was to keep up a certain number of armed men ready for the defence of the country; and they were to account to the king for the whole revenue, deducting from the proceeds a certain sum for their own maintenance and that of their soldiers. Mr. Hurdis considers the headmen and accomptants of villages as having an hereditary right to their offices. 1800. Nov. 18—20.

Money. The *Vir'-Raya Fanam* is here the most common currency among the people, who reduce all other coins to its standard. In the following Table is given the number of *Vir'-Raya Fanams* for which each coin passes, with the value of these at the Tower Mint price.

Gold Coins.

	V.R.F.	*s.*	*d.*
Sultany, Bahadury, and *Ikeri Varahun, Huns,* or *Pagodas* ...	$16\frac{1}{4}+\frac{1}{32}$	$=8$	1
Star-Pagoda ...	$14\frac{3}{4}+\frac{1}{64}$	$=7$	4
Porto-Novo, or *Feringy* ditto. ...	$12\frac{1}{2}$	$=6$	$2\frac{1}{2}$
Sultany Fanam ...	$1\frac{25}{100}$	$=0$	$7\frac{1}{2}$

Silver Coins.

Pondichery, or *Sultány Rupee* ...	$4\frac{1}{4}+\frac{3}{16}+\frac{1}{64}$	$=2$	$2\frac{1}{2}$
Company's *Madras Rupee.* ...	$4\frac{3}{16}+\frac{1}{32}$	$=2$	1

These are calculated to the nearest farthing: all sums of money in Mr. Hurdis's district I value at this rate of exchange; using, however, the exact fraction, in place of the foregoing approximation.

The Weights in use here are Weights.

24 *Star Pagodas* = 1 *Polam* = $0\frac{1782}{10000}$ lb.
100 *Polams* = 1 *Tolam* = $17\frac{82}{100}$ lb.

The measure of grain used by the farmers, and that by which it is sold in the market, are different. Dry-measure.

The measure used by the farmers for dry-grains is thus formed: 72 Company's *Rupees'* weight of grain fill a *Puddy.*

4 *Puddies* = 1 *Bulla* or *Vullam* = cubical inches	$246\frac{5}{10}$.
16 *Bullas* = 1 *Morau, Siliga,* or *Candy* ...	3958·8
6 *Moraus* = 1 *Podi* ...	23697·7

Also for Rice.

40 *Bullas* = 1 *Siliga* or *Candy* ... inches	9874·2
30 *Siligas* = 1 *Mau* ...	29622·1

The Market (Bazar) Measures are,
For Rice.

84 *Sultany Rupees'* weight of grain fill a *Puddy.*

3 *Puddies* = 1 *Bulla,* containing cubical inches ...	216
40 *Bullas* = 1 *Siliga* or *Candy* ...	8640
30 *Siligas* = 1 *Mau* ...	259200

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Also for Dry-grains.

16 *Bullas* = 1 *Morau, Siliga* or *Candy* 3456

Rice-ground. Land measure.

The Measure for Rice-ground.

24 feet square = 1 *Culy.*
220 *Culies* = 1 *Mau,* which therefore contains $2\frac{8965}{10000}$ acres.

Rent.

The rice lands in this neighbourhood are let to persons of all castes. That of the first quality pays 160 *Fanams* a year for the *Mau*; the second quality pays 140 *Sultany Fanams*; the third, 136 *Fanams*; and the fourth 118 *Fanams.* These, reduced to English money and measure, give 1*l.* 15*s.* 9½*d.*; 1*l.* 9*s.* 10½*d.*; 1*l.* 9*s.*; and 1*l.* 5*s.* 2*d.* an acre. If the rice land be cultivated for *Betel-leaf* (*Piper Betle*), it pays 360 *Fanams*, or at the rate of 3*l.* 16*s.* 9*d.* an acre. Land cultivated with sugar-cane pays no higher rent than that cultivated with rice; yet very little sugar is made here, while much is raised in other districts, where it is higher assessed. The accompanying Table, explaining the cultivation of *wet-grains*, has been compiled from the reports of the farmers and merchants assembled for the purpose. One crop only of the three first kinds of rice can be taken in the year. If the *Caru Curivay* be sown, a crop of *Kevir* (*Cynosurus corocanus*) follows. This is much used, the produce of the two crops, on the whole, being of greater value. It is evident, that the produce here is much under-rated; as the whole value of the crops, after deducting the seed, is little more than the rent paid to government. It must be observed, that the land here is much lower rented than at *Nala Rayana Pallyam*; yet the farmers here do not acknowledge a greater produce than what will pay their low rent, while those of *Nala Rayana Pallyam* acknowledge a produce, that, after paying the heavy tax imposed on them, leaves a considerable gain. Could entire reliance be placed on the accuracy of these statements, this would show in a very decisive manner the advantages of high rents; but it must be evident, that the data upon which a traveller can found his calculations are liable to innumerable objections; nor do I think, that less than a residence of ten years, with actual experiments on every crop, could enable a person to speak decidedly on the rate of productiveness which the land of any district possesses.

1800.
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Statement of the seed, produce, and value of the grains cultivated on Nunjy land at Darapuram.

Kinds.	Crop for which each is fitted.	Months each requires to ripen.	Quality	Average value of *Buzar Siliga.*	Average value of farm *Siliga.*	Average value of Bushel.	Seed per *Mau* land.	Seed per acre.	Produce. Of a *Mau* land. *Siligas.*	Produce. Of a *Mau* land. Value, deducting seed.	Produce. Of an Acre. Bushels.	Produce. Of an Acre. Value, deducting seed.
				V. R. F.	V. R. F.	s. d.	*Bullas*	Bush.		V. R. F.		£ s. d.
Sambun Rice... ..	*Nadavu*, or transplanted	6	Small	8½	9·714	0 11¾	40	1·579	30	281¾	47·35	2 8 1
Alaky Manawal do	ditto	8	Coarse	7	8	0 8	40	1·579	30	232	47·35	1 19 7
Sri Ravabanum do	ditto	6	Small	8⅓	9·714	0 11	40	1·579	30	281¾	47·35	2 8 1
Caru Curivay ditto	*Cai Varapu*, or sprouted seed	3	Coarse	7	8	0 8¾	80	3·157	25	184	39·46	1 11 4¾
Kevir, or *Ragy*				7¼	8·286	0 9½	3	0·118	15	123½	23½	1 1 1¼

1800.
Nov. 18—20.
Dry-field.
Rent.

I also received the following account of the *Kiet*, or dry-field cultivation of *Darapuram*.

The best fields let at 60 *Canter'-Raya Fanams* a *Vullam* of 64 *Vaums* square; the worst lands at 4 *Fanams*. Grass land lets from 10 to 2 Fanams. These rents, when reduced to English money and measure, are as follow: arable land from 8*s*. 8¼*d*. to 7*d*. an acre. Grass land from 1*s*. 5¼*d*. to 3½*d*. an acre.

Cotton.

The quantity of cotton raised is considerable, and the kind most commonly cultivated is the *Nadum Pirati*, which requires a red soil. The ground is ploughed four times; and between the 10th of April and the 10th of May the seed is sown. No other grain is mixed with the cotton. For three seasons it produces a crop once a year, in April and May; after which a crop of grain is taken, before cotton is again sown on the same field. In a good year a *Vullam* land produces 5 *Tolams*, or an acre $20\frac{8}{10}$lb. It sells at 2½ *Vir'-Raya Fanams* a *Tolam*, when containing the seed; or at $\frac{8357}{10000}$ of a penny a pound; so that the value of the produce of an acre is 1*s*. 5¼*d*.

The *Upum* cotton requires a black soil. It ripens in six months, and a *Vullam* land produces seven *Tolams* of raw cotton.

Articles cultivated on dry-field.

The following Articles are cultivated here on the *Kiet*, or Dry-field.

Kinds.	Seed, Per *Vullam* land.	Seed, Per Acre.	Produce, Per *Vullam* land.	Produce, Per Acre.
	Vullams.	*Dec. of Bush.*	*Podis.*	Bushels.
Sholum (*Holcus sorghum*) ...	8	0·2144	4	10¼
Avaray (*Dolichos Lablab*) or *Tovary* (*Cytisus Cajan*)... ...	1½	0·0402	1	2½
Total... ...	9½	0·2546	5	12¾
Cambu (*Holcus spicatus*) ...	8	0·2144	4	10¼
Avaray or *Tovary*	1½	0·0402	1	2½
Total... ...	9½	0·2546	5	12¾
Colu (*Dolichos biflorus*)... ...	8	0·2144	1½	3¾
Shamay (*Panicum miliare*) ...	10	0·2681	2	5¼

Garden cultivation.

Garden-ground rents here at 80, 60, 50, and 40 *Canter'-Raya Fanams* a *Vullam*, or at 11*s*. 7*d*., 8*s*. 8¼*d*., 7*s*. 3*d*., and 5*s*. 9½*d*. an

acre, according to its quality. When the water is far below the surface, it is raised by the *Capily*, one of which can supply a *Vullam* of land, or 4¼ acres. If the depth of the water be less, it is raised by the *Yatam*, on which four men walk along the balance. A *Vullam* of land requires from one to two *Yatams*, according to the distance the water has to be raised; but two *Yatams*, wrought by ten men, are here reckoned cheaper than one *Capily*, wrought by one man and two oxen: the men, however, do other work in the garden.

1800. Nov 18—20. Machines for irrigation.

The principal article cultivated is tobacco; and a crop of grain is always procured in the course of the year from the same ground. The produce of a *Vullam* land of a good quality is 700 bundles of tobacco, weighing on an average 8 *Polams*, and worth 25 *Vir'-Raya Fanams* a hundred. The crop of *Sholum* is estimated at 6 *Podis*, or at 15½ bushels an acre. The crop of *Cambu* from tobacco land is estimated at the same amount with that of *Sholum*; that of *Ragy* is estimated at 7 *Podis*, or 18 bushels an acre.

Tobacco.

The farmers who are in easy circumstances keep their grain until they can retail it in the weekly markets. Poor men, in order to discharge their rents, are under the necessity of selling it to dealers, and in general lose 20 per cent.

Sale of grain.

The servants employed here in agriculture are hired in the beginning of the year for twelve months. They may change their service when this term expires, if they be not in their master's debt; but, as he generally advances money for their marriages, and other ceremonies, they are seldom at liberty to go away. They get twenty *Bullas* of rough rice *(Paddy)* a month, with four *Fanams* and one *Siliga* of rough rice yearly; and their master pays their house rent. The whole is about 31 bushels of rough rice, of which one half is husk, with two shillings in money, besides the house rent, which will not exceed one or two shillings a year. These servants generally have one wife, who at seed-time and harvest works for the master for daily wages. A woman's daily wages are four *Puddies* of grain, worth about nine-tenths of a penny. A man gets 6 *Puddies* of grain. A servant with these wages can once or twice a month procure a little animal food. Milk is too expensive. His common diet consists of some boiled grain, with a little salt and capsicum, and perhaps some pickles. His drink is the water in which the grain was boiled. He has very little clothing, and that little is extremely dirty; his house is a hovel, and he is commonly over-run with vermin and cutaneous disorders. The women, although not clean, are fully clothed.

Servants.

Throughout the *Coimbetore* province there are earths impregnated with muriatic salts, and others with nitrates; both of which have occasionally been made into culinary salt, and nitre.

Saline earths.

In *Tippoo's* reign the makers of saltpetre received advances from government, and prepared the saltpetre from the earth. It was twice boiled, and was delivered to the government at 1 *Vir'-Raya Fanam* for the *Bulla* containing 4 *Puddies* of 72 *Rupees'*

Saltpetre.

1800 Nov. 18–20. weight each, or at about 7*s.* 6¾*d.* a hundred-weight. This earth seems to contain the nitre ready formed, as no potash was added to it by the makers. It is only to be found in the hot season; so that I had no opportunity of examining its contents. I saw the two places in this neighbourhood where it is collected. The soil in both is very sandy and rocky, and the ways passing over them are much frequented by men and cattle. From the 10th of January until the 10th of February the saline earth is scraped from the surface, and is lixiviated, boiled, and crystallized twice.

Nov. 21. 21st *November*.—I went about eleven miles to *Puna-puram.* By the way I saw very little cultivation, but the whole country has formerly been ploughed. From a want of trees and hedges it is very bare, and the soil is rather poor. Immense fields of limestone are every where to be seen; and the *strata* of it at *Puna-puram* are much thicker than I have observed any where else. Many wells having been dug through these *strata,* to the depth of twelve and fifteen feet, give the traveller a good view of them. The calcarious matter seems to have been gradually deposited in horizontal *strata*, or layers. It involves small angular masses of quartz, and other stones, which, I suppose, must have arisen from its having flowed over the surface of the original *strata* while it was in a soft state, and collected fragments of these as it rolled along. On the surface of the layers, or in cavities, some of it assumes a botryoidal form, while other parts of these cavities have a smooth undulating or conchoidal surface. The original *strata* are all *aggregate* rocks.

Calcareous *Tufa.*

Puna-puram is a small fort, of which the hereditary chief is a young boy. He was brought to me by his grandmother, and male relations, who are the chief farmers in the place. This season they have had scarcely any rain, to which some of the waste appearance of the country must be attributed; but they say, that they have suffered much from the neighbouring *Polygars,* especially during a commotion that took place about three years ago.

Nov. 22. *Polygars.* 22nd *November*.—I went seven and a half *Malabar* hours' journey to *Mangalam,* an open village belonging to a *Polygar.* The country is not so stony as that through which I passed yesterday; but it is equally uncultivated. *Mangalam* is now reduced to forty houses. It formerly contained one hundred. This diminution is attributed to the oppression of *Tippoo,* and to want of rain; for many of the cultivators have removed to places blessed with a more favourable climate. The *Polygar* is one of the most stupid looking men that I have ever seen, and goes about with very little attendance or state.

Saline soil. Wherever wells have been dug into the lime-stone, water has been found at no great distance from the surface; yet here there is little or no garden cultivation. Much of the well water has a saline taste; and in almost every part of the neighbourhood culinary salt may be procured in the dry season by scraping the surface of the earth, and by lixiviation.

23rd *November.*—I went seven *Malabar* hours' journey to *Pujar-petta*, an open village with a few shops. Like almost all those in this neighbourhood, it is surrounded and intersected by many hedges, which serve as a defence against the thieves and robbers who come to drive away the cattle; and these miscreants, owing to the vicinity of the *Polygars*, have always been numerous. The village belongs immediately to the government, but is surrounded by the lands of *Polygars*. 1800. Nov. 23. Robbers.

This day's road led through a country which is in nearly a similar state with all that I have seen west from *Darapuram*; but the soil in some places is much better, and really very good. The hills of *Coimbetore*, and those that bound the *Ani-malaya* pass on the south, are both visible from *Pujar-petta*. Appearance of the country.

24th *November.*—I went six *Malabar* hours' journey to *Palachy*. As I approached it, the country became gradually more cultivated, and better inclosed; and its environs look well, being adorned with groves of coco-nut palms; but there are no other trees near it. The town contains 300 poor houses and a small temple, and derives its name from the second wife of a *Vaylalar*, who came to the place when the country was entirely covered with woods, and began to clear it by the *Cotu-Cadu* cultivation. The town is rising fast into importance, having been made the residence of a *Tahsildar*, and being placed in the line of the new road that has been opened to *Pali-ghat*. Near it is a small fort. Nov. 24. *Palachy.*

In this vicinity was lately dug up a pot containing a great many Roman silver coins, of which Mr. Hurdis was so kind as to give me six. They were of two kinds, but all of the same value, each weighing 56 grains. One of the kinds is of *Augustus*. The legend round the head is CAESAR AVCVSTVS DIVI F PATER PATRIAE; that is, *Cæsar Augustus Divi Filius Pater Patriæ.* Above the reverse, representing two persons standing with two bucklers and spears placed between them, the legend is AVCVSTI F COS DESIC PRINC IVVENT; that is, *Augusti Filio Consule designato, principe juventutis.* Under the figures is written CAESARIA or *Cæsaria*, at some city of which name it has been struck. The other coin is of the same weight, and belongs to *Tiberius*. The legend round the head is TI CAESAR DIVI AVC F AVCVSTVS; *Tiberius Cæsar Divi Augusti Filius Augustus.* On the reverse, representing a person seated, and holding a spear in one hand and a branch in the other, is the following legend: PONTIF MAXIM, or *Pontifex Maximus.* Roman coins.

The *Tahsildar* showed me a very regular account of the whole lands in his district, according to the mensuration and valuation made by *Chica Deva Raya* of *Mysore.* The proportion of land not possibly arable is stated to be very small; and almost the whole face of the country, except in the immediate vicinity of *Palachy*, appears to the traveller to be waste: yet the *Tahsildar's* accompts state the whole arable lands to be occupied. Statistical accounts of the revenue officers.

1800. Nov. 24. Tenures of the farmers.

The manner of letting the lands here is very singular. The worst ground, being left for pasture as a common, pays no rent, and must be much more extensive than the *Tahsildar* states; as is clearly proveable by the immense extent of uncultivated land that is every where to be seen. The remainder of the ground belonging to each village, and which is reckoned all that is arable, has an average valuation fixed upon it. In some villages this is 20 *Fanams* a *Bulla* for the whole arable land, good or bad; in others, it is so high as 50 *Fanams* a *Bulla*. If the fields rated as *Bullas* contained no more than the proper measure, the first rent would be 2*s.* 10¾*d.* an acre, the latter 7*s.* 3*d.*; the average value of the whole lands of a village having been fixed, the fields are divided into three qualities, according to the goodness of their soil; and they are then divided among the cultivators by an assembly of these people; in which, in order to prevent partialities, the officers of revenue have no right to interfere. The farmers complain, that the land is forced on them, and that they are compelled to rent more than they have stock to enable them to cultivate. A man who rents 17 *Bullas* of land is able only to plough 9 of them; whereas, if he had full stock, he would plough between 11 and 12, leaving one-third part in fallow. The rents, however, have been lowered; in some villages one-fifth, in others one-third, in order to compensate the loss which the farmer suffers by this manner of renting lands, where there is not a sufficient stock to cultivate the whole. This sort of tenure seems to be a great evil, and, in order to keep down the rent, will occasion constant clamours of poverty among the farmers.

Size of farms and plough-lands.

One plough is reckoned here adequate to cultivate 2 *Bullas* of land, or $8\frac{562}{1000}$ acres. A few farmers possess 10 ploughs, but by far the greater number have only one.

Servants, and price of labour.

There are here two kinds of servants employed by the farmers to cultivate the lands: they are called *Pudial*, and *Pungal*.

Pudials.

The *Pudials* receive yearly 3 *Podis* of grain (29 bushels), worth 48 *Vir'-Raya Fanams*, with 10 *Fanams* in money, and a house. The 58 *Fanams* are equal to 1*l.* 8*s.* 9½*d.* The wife and children of the *Pudial* are paid for whatever work they perform. He is hired by the year; but, if he contracts a debt with his master, he cannot quit the service till that be discharged.

Pungals.

The *Pungals* go to a rich farmer, and for a share of the crop undertake to cultivate his lands. He advances the cattle, implements, seed, and money or grain, that is necessary for the subsistence of the *Pungals*. He also gives each family a house. He takes no share in the labour, which is all performed by the *Pungals* and their wives and children; but he pays the rent out of his share on the division of the crop, which takes place when that it ripe. If a farmer employs six *Pungals* to cultivate his land, the produce is divided into 15 portions, which are distributed as follow:

6 to the farmer, or *Punnadi,* for rent, seed, &c. 180. Nov. 24
1 to ditto for profit.
2 to ditto for interest of money advanced.
6 to the *Pungals,* or labourers.

15 portions.

Out of their portions the *Pungals* must repay the farmer the money which he has advanced for their subsistence. The farmers prefer employing *Pudials,* when they can be procured; but among the labourers the condition of the *Pungals* is considered as preferable to that of the *Pudials.* Six-fifteenths of the whole produce is indeed a very large allowance for the manual labour bestowed on any land; and, as the farmer can afford to give it, the rents must be moderate.

The Grain Measure in use here is as follows: Measures

63 *Rupees* weight of 9 grains, mixed in equal quantities, fill a *Puddy,* which measures 54 cubical inches.

4 *Puddies* = 1 *Bulla,* or *Vullam* = $0\frac{1005}{10000}$ bushel.
96 *Bullas* = 1 *Podi* ... = $9\frac{644}{1000}$
30 *Bullas* = 1 *Candy,* or *Siliga* = $3\frac{14}{1000}$

The Weights for Cotton are: Weights.

8 *Rupees* = 1 *Pull* = $0\frac{19995}{100000}$ lb.
100 *Pulls* = 1 *Tolam* = $19\frac{995}{1000}$

The coins commonly current here are *Vir'-Ráya Fanams* and *Feringy,* or *Porto-Novo Pagodas,* equal in value to ten *Vir'-Raya Fanams.* The revenue is estimated in *Canter'-Raya Fanams* at the rate of 100 for 125 *Vir'-Raya Fanams.* Money.

The land measure is the same as at *Coimbetore,* the *Bulla* or *Vullam* land being a square of 64 *Vaums* or fathoms each way, and is therefore equal to $4\frac{284}{1000}$ acres; but, by the actual measurement of a field, I found that it contained $5\frac{88}{100}$ acres, or that the *Vullams,* by which the accompts are kept, are larger than they ought to be, as 1372 is to 1000. Not knowing, however, how far the other fields may exceed the true measurement, I have in all my calculations considered that as the standard; but I would warn the reader to think it probable, that the size of the computed *Bullas* is at least equal in general to that of the one which I measured. Land-measure

In the accompanying TABLE will be seen many particulars relative to the cultivation of the dry-grains, which is here almost the sole occupation of the farmers. The produce is taken on the average of a good year, as allowed by the farmers in presence of the *Tahsildar.* Dry-grains.

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Table explaining the value and quantity of Seed and Produce of the different Articles cultivated on dry-field at *Palachy*.

Kinds.	Average Value.				Seed. For One *Vullam* land.	Seed. For one Acre. Quantity.	Seed. For one Acre. Value.	Produce. Of One *Vullam*. land.	Produce. Of one Acre. Quantity.	Produce. Of one Acre. Value.	
		P.R.F.	s.	d.			Pence			s.	d.
Sholum (Holcus sorghum)	Per *Podi*	16	Per Bushel 0	$9\frac{3}{4}$	*Bullas* 12	Bushels 0·2814	$2\frac{3}{4}$	*Podis* 8	Bushels 18	14	10
Shamay (Panicum miliare, E. M.) ...	ditto ..	$17\frac{1}{3}$	ditto .. 0	$10\frac{3}{4}$	ditto 32	ditto 0·7504	$8\frac{1}{10}$	ditto 8	ditto .. 18	16	$2\frac{3}{4}$
Bajera, or Cambu (Holcus spicatus) ...	ditto ..	16	ditto .. 0	$9\frac{1}{4}$	ditto 15	ditto 0·3517	$3\frac{1}{2}$	ditto 10	ditto .. $22\frac{1}{2}$	18	$6\frac{1}{2}$
Tovary (Cytisus Cajan)	ditto ..	24	ditto .. 1	$2\frac{3}{4}$	ditto 2	ditto 0·0469	$\frac{7}{10}$	ditto 1	ditto .. $2\frac{1}{2}$	2	$9\frac{1}{4}$
Muchu Cotay (Dolichos Lablab)... .	ditto ..	16	ditto .. 0	$9\frac{1}{4}$	ditto $\frac{1}{2}$	ditto 0·0117	$\frac{11}{100}$	ditto $\frac{1}{4}$	ditto .. $\frac{56}{100}$	0	$5\frac{1}{2}$
Mutu Cotay (Ricinus palma, Christi)...	ditto ..	24	ditto .. 1	$2\frac{3}{4}$	ditto $\frac{1}{2}$	ditto 0·0117	$\frac{17}{100}$	ditto $\frac{5}{16}$	ditto .. $\frac{3}{4}$	0	11
Tata Pyra (Dolichos catsjang)	ditto ..	16	ditto .. 0	$9\frac{1}{4}$	ditto $\frac{1}{2}$	ditto 0·0117	$\frac{11}{100}$	ditto $\frac{3}{16}$	ditto .. $\frac{45}{100}$	0	$4\frac{1}{2}$
Colu (Dolichos biflorus)	ditto ..	7	ditto .. 0	$1\frac{1}{4}$	ditto 12	ditto 0·2814	$1\frac{1}{4}$	ditto 7	ditto .. $15\frac{3}{4}$	5	8
Wulindu (Phaseolus minimoo, Roxb.)	ditto ..	24	ditto .. 1	$2\frac{3}{4}$	ditto 12	ditto 0·2814	$4\frac{1}{4}$	ditto 4	ditto .. 9	11	$1\frac{1}{2}$
Pacha Pyra (Phaseolus mungo)	ditto ..	32	ditto .. 1	$7\frac{1}{4}$	ditto 15	ditto 0·3517	7	ditto 4	ditto .. 9	11	10
Ellu (Sesamum)	ditto ..	32	ditto .. 1	$7\frac{3}{4}$	ditto 3	ditto 0·0703	$1\frac{4}{10}$	ditto 5	ditto .. $11\frac{1}{4}$	18	6
Carlay (Cicer arietinum)	ditto ..	$38\frac{4}{10}$	ditto .. 1	$11\frac{1}{4}$	ditto 20	ditto 0·469	$18\frac{18}{100}$	ditto $3\frac{1}{2}$	ditto .. $7\frac{1}{2}$	14	$5\frac{1}{2}$
Cotton Upum...	Per *Tolam*	2	Per lb. .. 0	$0\frac{6}{11}$	ditto 2	lbs. .. 9·332	..	*Tolams* 20	lbs. .. $93\frac{1}{3}$	4	$7\frac{1}{4}$
Ditto Nadum	ditto ..	2	ditto .. 0	$0\frac{9}{11}$	ditto 2	ditto 9·332	..	ditto 20	ditto .. $93\frac{1}{3}$	4	$7\frac{1}{4}$

Except 240 *Bullas*, or 1029 acres, given in *Enam*, the whole arable lands in the subdivision immediately depending on *Palachy* are rented, and pay at the rate of 40 *Fanams* a *Vullam*, or 5*s.* 9½*d.* an acre. It formerly let for 50 *Fanams* a *Vullam*; but the rents have been lowered one-fifth part, on account of the farmers' poverty. Almost the whole is fit for the cultivation of *Cambu* and *Sholum*, which renders it so valuable. Twenty-six *Bullas* only are cultivated with the machine called *Capily*, and that in a very slovenly manner. This pays no additional rent; a strong proof of the advantage of rent as a stimulus to industry; for in most places of this province, where a great additional rent is demanded, this kind of cultivation is carried on with great spirit and care.

1800. Nov. 24. Rent.

Rotation of crops, and produce.

The following statements will show the common manner of cropping the ground, which is done here with more judgment than is usual in India.

		Value per acre.		
I. First year *Cambu*, with accompanying grains...		£1	3	0
Second year 1st crop *Sholum*... ...	14*s.* 10*d.*			
2nd crop *Colu*	5*s.* 8*d.*			
		1	0	6
Third year grass manured by folding cattle on it		0	1	6
Total produce of three years		2	5	0
Deduct Rent	17*s.* 4½*d.*			
Seed	0*s.* 7½*d.*			
		0	18	0
Remainder for stock and labour... ...		£1	7	0
II. First year *Cambu*, with its accompanying grains		£1	3	0
Second year 1st crop *Shamay* ...	16*s.* 4¾*d.*			
2nd crop *Colu*... ...	5*s.* 8*d.*			
		1	2	0¾
Third year grass...		0	1	6
Total produce of three years... ...		2	6	6¾
Deduct Rent	17*s.* 4½*d.*			
Seed	1*s.* 0¾*d.*			
		0	18	1½
Remainder for stock and labour...		£1	8	5¼

In place of *Shamay*, may be sown *Wulindu*, or *Pacha-Pyra* or *Ellu*.

	£	s.	d.
III. First year *Cambu*, with the accompanying grains	1	3	0
Second ditto *Sholum* and *Nadum* cotton	0	19	5½
Third ditto cotton remains giving ¾ of a crop	0	3	5½
Fourth ditto grass.	0	1	6
Total produce of four years...	2	7	5

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Deduct Rent...	19*s.* 2*d.*	
Seed	0*s.* 6½*d.*	
		0 19 8½
Remainder for stock and labour...		£ 1 7 8½

Some farmers in the third year sow *Sholum* between the drills of cotton. The crop is very poor.

Cultivation.

The manner of cultivating these crops is as follows: the field, while in grass, is manured by folding on it as many cattle as can be procured. Then between the 26th of May and the 27th of July it is ploughed five times. During this season there are slight showers of rain; but in a few days afterwards the heavy rains generally commence. When this happens, sow the *Cambu* broad-cast, and cover it with the plough. On the second or third day furrows are drawn through the field, at the distance from each other of six cubits. Into these a man, who follows the plough, drops the seeds of *Tovary, Muchu-cotay, Mutu-cotay,* and of *Tata-Pyra* (see the annexed Table), while another plough comes behind, and covers them with a second furrow. These accompanying seeds are never intermixed; one being sown in one part of the field, and another in another part: but in every field a proportion of each is sown. The *Tata-Pyra* is sometimes mixed with the *Cambu* seed and sown broad-cast. At the end of one month, the young *Cambu* is about 4 or 5 inches high, and the field is then ploughed. In five months it ripens, and two months afterwards the accompanying grains come to maturity. The ears of the *Cambu*, when ripe, are cut off, and immediately trodden out. The grain, after being separated from the spikes, is dried in the sun two or three days, and put up in store-houses, so as to be secured from moisture and the circulation of air. After having been kept one year, its value is much diminished, and at the end of two years it becomes totally useless.

The *Cambu* straw is only used for thatch, and is allowed to stand on the field until between the 12th of March and the 10th of April, when it is pulled up by the roots. These being large, the ground is loosened by the operation, and, without having been ploughed, is immediately afterwards sown with *Sholum,* or *Wulindu,* or *Pacha-Pyra,* or *Ellu* (see the Table). After these seeds have been sown broad-cast, the field is once ploughed. If *Shamay* is to be sown, the field is ploughed once, the seed is sown between the 12th of May and the 11th of June, and then covered by the plough. One month after having been sown, the *Sholum* field must be again ploughed; the others ripen without any trouble. *Sholum* straw is here reckoned the best fodder. These crops ripen between the 14th of September and the 14th of October; and immediately after they are reaped the field is ploughed, and sown with *Colu,* or *Horse-gram,* the seed of which is covered by a second ploughing. At the end of a month weeds ought to be removed by the hand. In five months more it is ripe.

When cotton is cultivated with *Sholum*, the seed of the latter is first sown, and then that of the cotton is scattered over the field. Both are then covered by the plough, and at the end of the first month the field is again ploughed. At the end of the second month the weeds are removed by a small hoe. After the *Sholum* has been reaped, the field is ploughed three times between the cotton plants, which grow quite irregularly three or four cubits from each other. Between the 10th of February and the 10th of April the cotton produces a full crop. Next year, according to the native reckoning, between the 15th of October and the 12th of December, the field is ploughed again three times, and at the usual season gives a crop of three-fourths of what it produced in the first year. The plants are immediately pulled up, and the field is allowed a year's fallow. 1800. Nov. 24. Cotton.

The soil here is partly a red, and partly a dark coloured sandy loam; but in some neighbouring villages there is a rich black soil which every year produces a crop of *Upum* cotton, mixed with the *Cicer arietinum*, or with two umbelliferous plants, called *Danya* and and *Cuderi Womum*. Soil.

The *Cuderi Womum*, or Horse-*womum*, is used as a carminative for horses; and, such being considered by the natives of this country as necessary for these animals, a mixture of it with pepper, onions, and the like, is once a week given to every horse. *Cuderi Womum.*

I have already mentioned, that besides the bad stony land, which is common, the farmers here keep in fallow for pasture one-third of their whole land. They pay full rent for the latter, but nothing for the use of the commons. For pasture, they never are necessitated to send their cattle to the hills. The sickness that prevailed last year among the cattle over a great part of the country was not severely felt at *Palachy;* but the year before it had raged. The cattle of the cow kind in this neighbourhood are of the same breed with those above the *Ghats*, but are rather inferior in size. Pasture.

The *Ani-malaya Polygars* are twelve in number. My information is taken from one of them, called the *Gopina Gauda*. He says, that six generations ago they were sent into the country by *Trimula Nayaka*, the *Raja* of *Madura*. Several of them are of *Telinga* descent, but not any are of the *Madura* family. Each of them paid an annual tribute, and, according to the extent of his district, was bound to keep up a certain number of *Candasharas*, or foot soldiers. Whenever called upon, the *Polygars* were bound to serve in the field with all these infantry; but then they got *Batta*, or subsistence money, from the *Raja*. Each *Candashara* had a small farm, which he or his family cultivated for his support in peace, and for his clothing. The head *Candashara* of every village had a large farm, and acted under the *Polygar* as captain; but out of the profit of his farm he was bound to provide arms for his company. Some of the villages in each district were thus divided among the *Candasharas;* while others were let for a rent, out of which the *Polygar* maintained his family, and paid his tribute. Within his own dis- *Polygars* and *Hindu* militia.

1800. Nov. 24.

trict he possessed the power of life and death, with every kind of jurisdiction, civil and military. Of the twelve *Polygars* of *Animalaya*, five are of the *Vayeliar* caste, a *Telinga* tribe; four are *Vaylalar*, a *Tamul* caste; one is a *Golar Totier*, also of *Telinga* extraction; one is a *Poloa*, which is a caste of *Malayalam*; and the twelfth is of the *Vir'-pachary* family, the head of which is now in a kind of rebellion. The *Gopina Gauda's* district contained 60 villages, maintained 1000 *Candasharas*, and paid a tribute of 40,000 *Vir'-Raya Fanams*, or 951*l.* 7*s.* 2¼*d.* Things continued in this state until the government of *Hyder*, who entirely did away the military tenure, but left each *Polygar* some lands in *Enam*, or free of rent, in place of what it might be supposed they before enjoyed for the support of their families. The *Enam* left to the *Gopina Gauda* was six villages, or one-tenth of his district. In this *Enam* he retained the full jurisdiction that he formerly possessed over his district; for, in eastern governments, the life and property of the subject are frequently intrusted to the discretion of the most petty officers, or land-holders. On *Tippoo's* accession, the *Asoph* or lieutenant of *Coimbetore*, *Khadir Ali Khan*, forced the *Polygars* to pay tribute for the lands which *Hyder* had allowed them to retain, and they were entirely disarmed; but they were allowed to retain over their vassals both civil and criminal jurisdiction. Ten years ago *Tippoo* endeavoured to seize them, in order, by circumcision, to make them Mussulmans; but they made their escape into the country of the *Cochin Raja*, and continued there until the fall of *Seringapatam*. The lands left to them by *Hyder* as *Enams* have now been restored for a tribute, amounting to three-fourths of what was exacted by *Tippoo* in the beginning of his reign; and their jurisdiction is similar to that of the *Tahsildars*, except that the government does not interfere with the manner in which they let their lands. In fact, they are now almost on the same footing with the *Zemindars* of Bengal, only they possess a small authority in matters of police, and a limited civil jurisdiction, and their rents are more moderate. *Gopina Gauda* alleges, that he pays three-fourths of his collections; Mr. Hurdis estimates his profits at 40 per cent. Formerly, during the confusion which subsisted in the open country, the districts of these chiefs, being inaccessible without great trouble, were an asylum for those in distress; but since the Company's government has given security to all well-disposed persons, most of the people who had retired thither have returned to their former places of residence; on which account the estates of the *Polygars* are now thinly inhabited. The *Polygars* collect their rents without the assistance of armed men. *Candasharas* are allowed to the *Tahsildars*; but they serve them rather in their capacity of officers of police, than in collecting the revenue.

Vaylalar, a tribe of *Tamuls*.

Throughout the *Coimbetore* province the *Vaylalar* are a numerous tribe of the *Tamul* race, and are esteemed to be of pure *Sudra* caste. They are of several different kinds; such as *Caracata*, *Palay*, *Chola*.

Codical, Cotay, Pandava, and *Shayndalay Vaylalars* : of this last kind are those who give me information. All *Vaylalars* can eat together; but these different kinds do not intermarry, nor can a man marry a woman of the same family with himself in the male line. The *Vaylalar* are farmers, day-labourers, and servants who cultivate the earth; many of them can keep accompts, and read books written in their native language. At *Canghium* resides *Canghium Manadear*, hereditary chief of all the *Shayndalay Vaylalars*. Formerly this person settled all disputes in the caste; but Mr. Hurdis, having found that the hereditary chiefs excommunicated unjustly the people of their clans, ordered that all caste business should be settled in public court by the *Tahsildar*, with the advice of a council of persons skilled in the rules and customs of the caste in question. The people seem to be satisfied with this change. The *Vaylalars* are not permitted to drink intoxicating liquors ; but such of them as have not received *Upadésa* may eat animal food. If their first wife has children, they cannot marry another ; nor do the men ever keep concubines in their houses. The women continue to be marriageable after the age of puberty; but widows are not allowed to take a second husband, nor to live with men as concubines. For adultery, if the fault has been committed with a person of the caste, a woman is seldom divorced, unless her shame has become very public. The widow ought to burn herself with her husband's corpse, and this is still sometimes, though very rarely, practised. The tombs of such women as have committed this action are considered as places of worship, and their memory is venerated as that of saints. They are all worshippers of *Siva*; but the proper *penates*, or family gods, are various *Saktis*, or female destructive spirits; such as *Kali, Bhadra Kali*, and the like. The *Vaylalar* offer sacrifices at the temples of these idols, and, if they have not received *Upadésa*, eat the flesh; but in *Chera* the *Pujáris* or Priests in these temples are all *Pundarums*, who are the *Sudras* dedicated to the service of *Siva's* temples, in the same manner as the *Satananas* are dedicated to those of *Vishnu*. In sickness, they make vows to ornament the temple of the *Sakti* who is supposed to occasion the disease; and if they recover, they employ the potter, who makes an image of a child or a horse, which is placed in the court of the temple. This kind of offering is extremely common in every part of *Coimbetore*, but I have not seen it in any other part of India. If the proper funeral ceremonies are performed, the *Vaylalar* believe that after their decease they will reside at the feet of *Iswara* They do not know what becomes of those who after death are not burned with the due rites. They do not require a *Puróhita* to read *Mantrams* at any of the family ceremonies; but, if the *Panchanga* chooses to come and read, he receives something for his trouble. Their *Gurus* are the *Siva Bráhmanas*, or *Bráhmans* who act as *Pujáris* in the temples of *Siva*, and the great gods of his family. These are considered as greatly inferior to the *Smartal*, either *Vaidika* or *Lokika*. The *Guru*

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1800. Nov. 24. comes annually to each village, distributes consecrated leaves and holy water, and receives a *Fanam* from each person, with as much grain as they choose to give. Some of them purchase an *Upadésa* from the *Guru*; giving for it, according to their circumstances, from one to ten *Fanams*. Those who have procured this may make a *Lingam* of mud, and perform *Puja* or worship to this rude emblem of the deity, by pouring flowers and water over it while they repeat the *Upadésa*. Such persons must abstain entirely from animal food. Those who have no *Upadésa* must pray without any set form, but are allowed to eat the flesh of sacrifices.

Handy Curubas. The *Handy Curubaru* are settled in this country in small numbers, and are generally employed as armed messengers for the police. They are all of *Karnataca* extraction, and came originally from *Kana-giri* and *Anagundi*.

The *Totear* are a *Telinga* tribe settled here in considerable numbers as cultivators. They are very poor, and remarkably ignorant, which prevented me from obtaining any rational account of their customs.

Nov. 27. Face of the country. 27th *November*.—I went seven *Malabar* hours' journey to *Animalaya*. Until I came to the river *Alima*, the road passed through a country well cultivated and inclosed. I forded the *Alima* at a town called *Umbrayen-pallyam*, which has formerly been a large place, but is now mostly in ruins, having been destroyed by the *Nairs* in their wars with *Tippoo*. I then proceeded up the side of the *Alima*, having a fine canal with rice-fields to my left, and woods on my right. These occupy the grounds of a village, in which there was formerly much cultivation of dry grains. This also was destroyed by the *Nairs*, who are considered by the people here as fierce and cruel barbarians.

Ani-malaya. *Ani-malaya*, or *Elephant-hill*, is so called from the great number of elephants and hills in its neighbourhood. It is a town which contains about 400 houses, and is situated on the west side of the *Alima*. It is the common thoroughfare between *Malabar* and the southern part of the *Arcot* dominions, being placed opposite to the wide passage that is between the southern end of the *Ghats* of *Karnata*, and the hills that run north from *Cape Comorin*. The *Madura Rajas*, the former lords of the country, built a fort close to the river; which having fallen to ruins, the materials were removed by the *Mysore Rajas*, and a new fort was built at some distance to the westward. Twelve years ago *Tippoo* gave it some repairs, and, to procure materials for the purpose, pulled down five large temples. It is still a very poor work, and is in the district of *Palachy*.

Devastation. The greater part of the dry-field in the neighbourhood is now overgrown with woods; for eight entire villages to the westward have been completely destroyed by the *Nairs*, and have never been repeopled. There are three dams on the *Alima*, that water much rice-ground, the greater part of which is cultivated. There was formerly a fine tank, supplied with water from a branch of the

Alima called the *Shinar*; but it fell into decay, and now the workmen are only beginning to put it in order. The whole watered-land in the village of *Ani-malaya* amounts, according to the measurement of *Chica Deva Raya*, to 750 *Candacas*, which should be about 3,100 acres. The dry-field is rated in the books at 400 *Bullas*; but of this three-fourths have become totally waste, and 70 *Bullas* only are actually cultivated. Ten villages in the immediate vicinity are without a single inhabitant. This shows how very inaccurate the accompts are that were shown to me at *Palachy* by the *Tahsildar*. Indeed, very little dependence is to be placed on the statements of native officers of revenue. **1800. Nov. 27.**

When the measurement of this district was made by the order of *Chica Deva Raya* of *Mysore*, a pole was taken, which was 25 *Adies*, or native feet, in length. Marks have been made on a long stone, which is preserved as a standard. These show the pole to have been 24½ English feet in length. 20 poles in length, by 15 in breadth, are called a *Candaca* of watered-land, which is therefore $4\frac{134}{1000}$ acres. The *Candaca* of grain is rather more than 3 bushels. **Land-measure.**

The whole rice-lands pay 72½ *Canter'-Raya Fanams* a *Candaca* (10*s.* 10½*d.* an acre), whether the soil be good or bad. Every ten years the different farmers draw lots for the fields, each of which, being a long narrow strip of land, contains all the varieties of soil. **Rent.**

The farmers of *Ani-malaya* are mostly *Sudras*; and owing to the want of hands and stock, can only take one crop in the year from their lands; but there being plenty of water for two crops, one half of the farm is cultivated at one season, and the other at another. Rice and a little *Betel-leaf (Piper Betle)* are the only articles raised upon watered ground. The crop sown between the 13th of July and the 13th of August is cultivated after the dry-seed manner. **Watered-lands.**

The sprouted-seed may be sown at any time between the 10th of May and the 10th of December, and is attended with the least trouble. This year a little transplanted rice has been tried, but in the present want of labourers it is considered as requiring too much trouble.

In the accompanying Table will be seen the particulars of the cultivation of rice in this district. The estimate is formed on the average of good soils, according to the report of the cultivators, who say, that the smallest produce is about three-quarters of that stated in the Table. I however think it rather probable, that what I have given may be considered as the average produce of the whole lands, good and bad. The *Cutari* rice is that most commonly cultivated, as it is less liable than the others to be injured by the herds of wild elephants; for these animals, although they eat rice, do not kill that kind when they tread on it. The *Cartic Sambau* is the best. At *Animalaya* no manure, either of leaves or dung, is used. **Produce.**

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Table explaining the cultivation of Rice at *Ani-malaya, in Coimbetore.*

Kinds.	Seed.		Time it requires to grow.	Value in the Husk.			Produce.					Amount of seed and rent for one acre.	
	For a *Candaca* land.	For an Acre.		Per Candaca	Per Bushel.		Of a *Candaca* land.	Of an Acre.					
	Candacas	Bushels	Months.	*V. R. F.*	*s.*	*d.*	*Candacas*	Bushels	£	*s.*	*d.*	*s.*	*d.*
Punedi Rices, or those sown dry-seed.													
Anacumba Sambau	5	3·645	6	6	0	11¾	45	32·8	1	12	5	14	5¾
Perum Sambau...	5	3·645	7	5	0	9¾	45	32·8	1	7	0¼	13	10¼
Molagy...	3	2·187	7	5	0	9¾	45	32·8	1	7	0¼	12	8¼
Cai Vayrapu Rices, or those sown sprouted-seed.													
Perum Sambau	5	3·645	6	5	[illegible]	9¾	37½	27·34	1	2	6¼	13	10½
Molagy	3	2·187	6	5	[illegible]	[illegible]	37½	27·34	1	2	6¼	12	8¼
Cutari	5	3·645	4	[illegible]	[illegible]	9¼	40	29·16	1	4	0¼	13	10½
Shurinaralin	5	3·645	4½	[illegible]	[illegible]	[illegible]	42½	30·98	1	5	6¼	13	10½
Cartic Sambau	2¾	2·004	5	6	0	[illegible]	42½	30·98	1	10	7½	12	10¼

1800. Nov 27. Dry-field rent.

Although this is in the *Palachy* district, the manner of letting the dry-field at the two places is quite different. The rent here is paid according to the kind of crop. A *Bulla* land, sown with *Cambu* or *Sholum*, pays 25 *Canter'-Ráya Fanams*, or 3*s.* 7½*d.* an acre; if cultivated for *Shamay*, *Colu*, &c., it pays 15 *Fanams*, or 2*s.* 2*d.* an acre; if left fallow for pasture, it pays 5 *Fanams*, or about 8½*d.* an acre.

Hilly country between *Travancore* and *Madura*. Drug-renters.

Here is a person called *Malaya-pudy*, or *hill-village-man*. He rents the exclusive privilege of collecting drugs in the hills south from *Ani-malaya*. These are collected for him by a hill people called *Cadar*, of whom, among the hills two days' journey hence, there is a village of 13 houses. The renter has there a small house, to which he occasionally goes to receive the drugs that the *Cadar* have collected, and brings them home on oxen. The men only work for him, and each daily receives in advance four *Puddies* of rice, worth half a *Vir'-Ráya Fanam*, or about 3*d.* At the end of the year the accompts are settled, every article having a fixed value; and the whole that each person has delivered having been estimated at this rate, he receives the balance, if any be due. In *Tippoo's* government, the renter paid annually 30 *Canter'-Ráya Pagodas*, or 6*l.* 4*s.* 1½*d.* His rent has this year been raised to 150 *Pagodas*, or 31*l.* 0*s.* 8½*d.*; but then he is allowed to take all the ivory that is found where elephants have died, and which formerly belonged to the government. The articles collected on account of the renter are as follow:

1. *Nonaputta*; the bark of a *Morinda*, which is used as a red dye. 1800. Nov. 27.
2. *Magali Calangu*; the root of a non-descript *Cynanchum*, which is a favourite pickle with the natives, and smells exactly like bugs.
3. *Inji*; wild ginger.
4. *Munjal*; wild turmeric.
5. *Mutti palu*; the juice of a tree, which by long keeping concretes into a kind of gum; both juice and gum are used by the natives to fumigate their clothes.
6. *Cungli-lium*; the resin of a non-descript tree, which I have called *Chloroxylon Dupada*, and which is a kind of frankincense.
7. *Shica-gai*; the fruit of the *Mimosa saponaria*, used by the natives to wash the oil out of their hair.
8. Honey and wax. There are here four kinds of honey-bee; 1st. *Malan ten*, a large bee which builds in cavities of rocks, and forms a large nest. One will produce four *Puddies*, or about 3 quarts of honey; and four *Polams*, or $12\frac{8}{10}$ ounces of wax. In procuring this there is much trouble, as the bee stings violently, and builds in places very difficult of access. A *Bamboo*-ladder is let down by means of a rope, from the summit of the rock, to where the honey is. The *Cadar*, taking a fire-brand in his hand, descends by the rope to the ladder, and, having chased away the bees by means of the fire, he collects the honey, and is then drawn up. Two men this year have been so violently stung by the bees, that they let go their hold, and were killed by the fall. 2d. *Todagy ten*, a middling sized bee, that builds in the hollow trunks of old trees. Its nest is but about a fourth part of the size of that of the *Malun ten*. The only trouble in collecting this is the enlarging the hole by which the bees enter, so as to get at the combs. Their sting is of no consequence. 3d. *Coshu ten*, a very small bee with a proportionably small quantity of honey, and that of a bad quality. It also builds in hollow trees. 4th. *Cambu ten*, a large bee which builds its nest round the branches of trees. The quantity of honey is small, but it is of the best quality. This bee is easily driven away by the twig of a tree switched round. The common price of wax is 30 *Vir'-Raya Fanams* for the *Tolam* of 800 *Rupees'* weight, or 4*l.* 2*s.* 6*d.* a hundred-weight.
9. *Casturi Munjal*; a kind of wild turmeric, which has a smell somewhat resembling musk. It is mixed with the powder of sandal-wood, with which the *Hindu* women of rank rub their skins.
10. *Levanga putty*; the bark of the *Laurus Cassia*. It is the *Cassia lignea* of India, which is very inferior to that of China.

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11. Ivory.

Tribes occupying the southern hills.

The renter trades with villages belonging to *Travancore*, and inhabited by rude tribes called *Visuar* or *Coravan*, *Vucumar*, and *Munnan*. These tribes occupy a hilly tract ten days' journey in length, and are scattered through this extent in villages of ten or twelve huts. They use the *Cotu-Cadu* cultivation, and collect the same articles with those above mentioned, and have besides cardamoms, which is the only thing that they sell to the renter who lives at *Ani-malaya*. In January they are brought to him fit for the market, and he knows nothing of the manner in which they are prepared, only that they grow on the hills without cultivation. The *Cadar* inform me, that their neighbours in the hills of *Travancore* know the places fit for cardamoms, by observing in the woods places where some of the plants grow. There the hill people cut all the trees, and give the sun access to the plants, which afterwards shoot up apace. It is three years, however, before they come to perfection. In the third and fourth years they produce abundantly, and then die; when the wood is allowed to grow up, and another part is cleared for a future crop. Between the 10th of January and the 9th of February the fruit is fit for cutting. If the seed be to be preserved in the capsules or husks, *Sempi*, or fruit-stems, before the fruit is quite ripe, are cut off by the root, and kept in a heap for some days; after which the capsules are separated from them by the hand. If the seed only be to be collected, the fruit-stems are allowed to ripen, until they become reddish, and until the birds begin to eat the seed. They are then cut, dried under the pressure of a stone for three or four days, and rubbed with the hand to separate the seed. This sells in the market here for 6 *Canter'-Raya Pagodas* a *Tolam*, or 10*l*. 6*s*. 5*d*. a hundred-weight. The capsules are rarely brought hither for sale, and are higher priced.

Cardamoms.

Pepper, wild.

Wild black-pepper is also found in these hills; but it is of a bad quality.

Myrobalanus.

In some of the hills which belong to *Erupa Nayaka*, one of the Company's *Polygars*, a renter has the exclusive privilege of collecting the *Myrobalans* called *Cadugai*, which are the fruit of the *Myrobalanus Arula*, Buch. MSS.

Tamarinds.

At *Ani-malaya* are three persons called tamarind renters, who pay a trifling rent for the exclusive privilege of collecting the tamarinds, honey, wax, and *Nomaputta*, that are found in the woods, which lie near the town. The people employed by them are called *Malasir*, and are also the wood-cutters of the country.

Nerium tinctorium.

There is here plenty of the *Pala-tree*, or *Nerium tinctorium*, Roxb. MSS.; but at present nobody makes it into *Palac*, or indigo. Fourteen years ago a man from *Darapuram* came for this purpose, but he was carried away by tigers.

Sandal-wood.

In the gardens round the town a few sandal trees have been planted. It does not come to any perfection; but its leaves serve as an offering to the idols. It does not grow on the hills.

I could have wished to have passed some days among these hills in botanical investigations; but at this season my attendants would have been exposed to great danger from the unhealthy air, and one half of them would probably have been seized with fevers as I experienced in the hills of the *Kaveri-pura* pass, which are not reckoned so bad as those of *Ani-malaya*.

1800 Nov. 27. Unhealthy forests.

The elephants are increasing here in number, owing to no hunt having been made for some years past. They are very destructive and formidable, and kill many poor people who are travelling in a solitary manner.

Wild-elephants.

The *Cadar* are a rude tribe inhabiting the hills in this neighbourhood, and speaking a dialect that differs in accent only from the *Tamul*. The men live by collecting drugs for the renter, as I have already mentioned. The women collect wild roots that are edible. They have no means of killing game, but eat any that they find dead. They rear no domestic animals, nor cultivate any thing whatever; but their clothing is as good as that of the neighbouring peasantry. They pay no taxes, and the renter settles all disputes among them. They live in villages called *Malaya pudy*. They always marry in their own tribe, but cannot take a girl who is of the same family with themselves in the male line. They are allowed a plurality of wives. The lover presents the mother of his mistress with some cloth, and iron tools, and the ceremony consists in a feast given to the relations. The girls continue to be marriageable after the age of puberty, and a widow can without disgrace marry again. If a woman commit adultery, the tribe assembled deliver her over to her paramour, who pays a fine to the husband, and takes the woman to be his wife. They do not drink spirituous liquors; and they bury the dead. After death, the spirits of good men reside with a god named *Mudivirum*, while those of wicked men go to a bad place. Their temples are small huts, in which rude stones represent *Mudivirum*, and two female deities called *Pay-cotu-Ummum*, and *Kali Ummum*. These deities protect their votaries from tigers, elephants, and disease, but have no priests. Once a year the whole people assemble at the temple, and offer rice and flowers to the images, and sometimes sacrifice a goat. When in the low country, they say that they are of *Vishnu's* side; but they pray to every image that they see. They say, that the men of another tribe living in the hills, and called *Visabun*, or *Corabun*, are their *Gurus*, and are able to read and write. They make presents to their *Guru*, and he gives them consecrated ashes. They have nothing to do with the *Bráhmans*.

Cadar, a rude tribe.

28th *November*.—I went seven *Malabar* hours' journey to *Mingara*, a place in the middle of the *Ani-malaya* forest, and on the frontier of the country which formerly belonged to the *Tamuri Rája*, where a guard of 15 armed men is placed by the *Tahsildar* of *Palachy*. The men are hutted on the banks of a mountain torrent; and although relieved once a fortnight, suffer exceedingly from this

Nov. 28. Guard on the frontier of *Malayala*.

1800. Nov. 28. unhealthful climate. They are stationed here to prevent the passage of thieves and armed vagabonds, to prevent smuggling, and to intercept unlawful correspondence. The three small huts which they occupy are the only habitations near the place.

Wild-elephants. On strong high trees the guard has constructed two stages, to which the men fly when they are attacked by solitary discontented male elephants, who are not to be driven away by firing at them, unless the ball takes place in some sensible part. Herds of elephants come very frequently to drink at the torrent; but are easily alarmed, and run away at the first shot. The guard meets with no annoyance from tigers. For the sake of water, merchants stop to breakfast at this place, and very often pass the night under protection of the guard. The road is a great thoroughfare, and between this and *Ani-malaya* is very good for loaded cattle. Carts might pass all the way, but in some places with difficulty. A very little expense would make the whole good.

Forests. The woods are stately, and clear of bushes or climbers; nor does the grass reach higher than the knee. The season for examining them would be March and April; at present they are extremely unhealthful. The greater part of the soil, in the woods between this and *Ani-malaya*, is tolerably good, and consists of gently swelling lands, with a moderate descent towards *Malabar*; so that the whole might be cultivated. The forests are too remote from water carriage to be valuable on account of producing timber for exportation; and the hills afford a sufficient quantity of timber for the use of the country.

The following are the trees which I observed in passing through this forest; the names are *Tamul*; and the account of their qualities is given on the authority of some wood-cutters that I purposely hired to accompany me.

1. *Buriga*.

A lactescent tree, with leaves three-lobed, petioled, alternate, and without stipules. It has a strong disagreeable smell, like that of a dirty man at hard labour, and its timber is of no use.

2. *Vagy, Mimosa speciosa Jacquini.*

A large tree with black timber.

3. *Vayda talla, Mimosa cinerea.*

4. *Parumba, Mimosa Tuggula*, Buch. MSS.

It grows here very large and straight, and its timber is reckoned very good.

5. *Carungali, Mimosa Sundra*, Roxb MSS.

A small tree, producing black wood, that is used by the natives for making the large pestles with which they beat rice to remove the husk.

6. *Puchay, Shaguda Cussum*, Buch. MSS.

A small but strong timber tree.

7. *Caracuttay, Zizyphus Caracutta*, Buch. MSS.

Used for beams in the huts of the natives.

8. *Vaypa Maram, Melia azadirachta.* 1800. Nov. 28.

9. *Calocutta Tayca, Premna tomentosa,* Willd.

A small tree, and bad timber.

10. *Tayca, Tectona grandis.*

In great abundance, and of the best quality.

11. *Bamboo.*

Here are both the hollow and the solid kinds. When 15 years old, they are said to bear fruit, and then to die. The grain is collected by the rude tribe called *Malasir*, and is occasionally used by all ranks of people. What is reckoned a delicacy among the *Hindus*, is formed by taking equal quantities of honey and of the *Bamboo* seed, putting them in a joint of *Bamboo* coated outwardly with clay, and roasting them over the fire.

12. *Bala nava, Andersonia Panchmoun,* Roxb. MSS.

Large, good timber.

13. *Wodagu.*

Bad timber.

14. *Aty Bauhinia.*

Its bark is used for matches.

15. *Buruga.*

Perhaps an *Aleurites*? The timber is very soft, and used for making the scabbards of swords.

16. *Patchely, Dalbergia paniculata,* Roxb.

Reckoned good timber here; but that must be a mistake.

17. *Iruputtu* or *Carachu, Dalbergia* or *Pterocarpus.*

This is the black-wood of *Bombay,* and is called *Viti* by the people of *Malabar.*

18. *Vaynga, Pterocarpus bilobus Herbarii Banksiani.*

This differs from the *Pterocarpus santolinus* which above the *Ghats* is sometimes called by the same name. It is a good black-wood.

19. *Aia Maram.*

A good timber, taking a fine polish.

20. *Tayta Maram, Strichnos potatorum.*

21. *Malaya Taynga, Sterculia foliis digitatis.*

It wants the offensive smell of the *Sterculia fœtida.* Its name signifies the *hill coco-nut.* The follicles are as large as the two hands joined, and contain many seeds about the size of nutmegs, which the natives eat.

22. *Tanacu, Sterculia foliis lobatis capsulis hirtis.*

A middle sized tree, but its wood is very soft.

23. *Paylay, Pelon, Hort. Mal.*

The timber makes beams for the huts of the natives. The elephant is very fond of its fruit.

24. *Shorghilly, Sweitenia febrifuga,* Roxb.

A very strong timber, but not large.

25. *Calani, Clutia retusa.*

It strongly resembles the *Clutia stipularis,* but its fruit is disposed

1800. Nov. 28. on long spikes. A small tree; but its timber is strong, and is used for beams and posts in the huts of the natives.

26. *Conay, Cassia fistula.*

27. *Valambery, Helicteres Isora indica.*

A small tree of no use.

28. *Manjay Cadumbay.*

Used by the natives for stocks to their matchlocks.

29. *Cadumbay, Nauclea Daduga,* Roxb. MSS.

A large tree and good timber.

30. *Mara Linga, Cratera Tapia?*

Useless.

31. *Velly Madara, Chuncoa Huliva,* Buch. MSS.

A large tree, and good timber.

32. *Tani Cai Moram, Myrobalanus Taria,* Buch. MSS.

A large tree, and good timber. The fruit is used in medicine.

33. *Cari Marada, Chuncoa Marada,* Buch. MSS.

A large tree, and good timber.

34. *Peru Maram.*

This is the *Doda Maram* of *Karnata.* Both names signify the great tree; not owing to its size, which is small, but to its great power in stopping alvine fluxes. The fresh bark is beaten with a little butter-milk; the juice is then squeezed out, and taken by the mouth.

35. *Cat Elavu, Bombax.*

Probably the *Ceiba.* A soft wood, used for trunks and sword-scabbards.

36. *Tumbi, Chirongia sapida,* Roxb. MSS.

The timber is bad; the fruit is esculent.

37. *Punga, Robinia mitis.*

A large tree with useless timber. Lamp oil is expressed from the seeds.

38. *Bilputri, Limonia crenulata,* Roxb.

39. *Corunga Munji Maram, Rottleria tinctoria,* Roxb.

The name signifies *Monkey's-face-tree,* or *Mimusops*; for these animals paint their faces red, by rubbing them with the fruit. The tree is small, and the timber bad. The natives deny all knowledge of the dyeing quality possessed by the red powder that covers the fruit; but at different places in *Mysore,* I was told that the dye was imported from this part of the country.

Iron ore. In the channel of a mountain torrent I here found the iron ore, of a nature exactly similar to the black sand, but in lumps about the size of peas. The surrounding *strata* were all *aggregate* stones of a foliated texture, running east and west, and strangely undulated so as to resemble marbled paper. From these, while they are in a state of decay, the ore is probably derived.

CHAPTER XI.

JOURNEY THROUGH THE SOUTH OF MALABAR.

BEFORE entering *Malabar*, it may be necessary to premise, that this province is subject to the authority of three commissioners; under whom are employed a number of gentlemen, that act in their respective circles as magistrates and collectors. These officers, formerly appointed by the government of *Bombay*, have been lately placed under the Presidency of Fort St. George. With an establishment the expense of which has far exceeded the revenue, a complete protection from invaders, and a most tender regard to avoid the punishment of the innocent, it might have been expected, that this province would have been found in a situation very different from what I am compelled to represent it. No doubt, this has arisen from a lenity in punishing crimes, and an aversion to employ harsh measures to repress the turbulent, originating in a gentleness of disposition, which, however amiable in private life, in a government often produces the utmost distress to the peaceable and industrious subject. 1800. Nov. 28.

November 29th, 1800.—Having crossed the rivulet immediately after leaving *Mingara*, I entered the province of *Malabar*, in that part of it which formerly belonged to the *Tamura Rája*, as the *Zamorin* is called by the natives. I found that they considered it unlawful to mention the real name of this personage, and always spoke of him by his titles. Nov. 29. Zamorin.

The stage that I went to *Colangodu* is of moderate length, and the road crosses the rivulet five times, which from that circumstance is called *Wunan-Ar*. The woods through which we passed to-day are very fine; but the declivities are rather steeper, the roads worse, and the country is more rocky, than between *Ani-malaya* and *Mingara*. About half way to *Colangodu* are the ruins of a small mud fort which was built by the *Tamuri Rájá*, and destroyed by *Tippoo*. The circumjacent country has once been cultivated, as is evident from the remains of corn-fields. *Teak* and other forest trees are now fast springing up among the *Banyan* (*Ficus bengalensis*) and *Palmira* trees (*Borassus flabelliformis*), by which the houses of the natives have formerly been shaded; and this part of the country will soon be no longer distinguishable from the surrounding forests. Forest.

The environs of *Colangodu* are very beautiful. The high mountains on the south pour down cascades of a prodigious height; Appearance of the country.

1800. Nov 29. and the corn fields are intermixed with lofty forests, and plantations of fruit trees. The cultivation, however, is very poor. Most of the dry-field is neglected, and the quantity of rice-land is not great. Here the rain, without any assistance from art, is able to bring one crop of rice to maturity; and in a few places the natives have constructed small reservoirs, which enable them to have a second crop.

Colangodu. *Colangodu* has a resemblance to many of the villages in Bengal, although the structure of the houses is quite different; but each is surrounded by a small garden, and at a little distance nothing is to be seen, except a large grove of trees, mostly *Mangoes* (*Mangifera*) or *Jacks* (*Artocarpus*). The houses in *Colangodu* are about 1000 in number, and many of them are inhabited by *Tamul* weavers of the *Coicular* caste, who import all their cotton from *Coimbetore*. Dialect of *Malayala*. The *Malayala* language is, however, the prevalent one, and differs considerably from that of the *Tamuls*, or what among the Europeans at Madras is called the *Malabar* language. They are, nevertheless, both branches of the same dialect; and my Madras servants and the natives are, to a certain degree, able to understand each other. The accents are very different, and the *Malayala* language, containing a larger share of *Sanskrit*, and of the *Paat*, or poetical dialect, than the language prevailing to the eastward, is generally allowed to be the more perfect. The character used in *Malayala* is nearly the same with that used among the *Tamuls* for writing poetry; and the poetical language of both people is very nearly the same.

Nov. 30. Face of the country. 30th *November*.—I went a long stage to *Pali-ghat*. The country through which I passed is the most beautiful that I have ever seen. It resembles the finest parts of Bengal; but its trees are loftier, and its palms more numerous. In many places the rice grounds are interspersed with high swells, that are crowded with houses, while the view to the north is bounded by naked rocky mountains, and that to the south by the lofty forests of the *Travancore* hills. The cultivation of the high grounds is much neglected.

Dec. 1—4. 1st—4th *December*.—I remained with Mr. Warden, the collector of the district, taking an account of the neighbourhood; and from him I not only received every assistance during my stay, but have also been favoured with very satisfactory answers to queries which I proposed to him in writing. Of these I shall avail myself in the following account. Owing to Mr. Warden's kind and hospitable attentions, I found myself perfectly at home while under his roof; which was indeed the case every where in *Malabar*, when I had the good fortune to meet with an English gentleman.

Pali-ghat. *Pali-ghat* is a beautiful fort, built by *Hyder* on his conquest of *Malabar*, and situated in the country called *Pali-ghat-shery*, which *Malayala*, or *Malabar*, or *Kerala*. belonged to the *Shekhury Raja*, one of the petty chiefs of *Malaya*; a word from which, by sundry corruptions, *Malabar* is derived. In the list of the 56 *Desas* of *Bharata-khanda*, given me by the *Bráhmans* of *Arava-courchy*, *Malayala* and *Kerala* are laid down as two

distinct *Desas*; but among the *Bráhmans* here they are considered as the same; or at least, that *Malayala* forms a part of *Kérala*. Some consider the words as synonymous, and say, that *Malayala* is the vulgar word, for what is called *Kérala* in the *Sanskrit*; while others allege, that *Kerala* comprehends the whole country below the western *Ghats*, from Cape *Comorin* to *Surat*; while *Malayala* includes that part only which is situated to the south of the *Chandra-giri* river. The *Malayala* of the list given me at *Aravacourchy* is probably a corruption for *Malayáchala*. 1800. Dec. 1–4.

History of Malayala.

According to the accounts of the *Bráhmans* here, no part of *Kerala* is included in the 56 *Desas* of *Bharata-khanda*, and it is of a much later origin. They say, that when *Parasu-râma*, one of the incarnations of *Vishnu*, had conquered all *Bharata-khanda*, had destroyed all the *Kshatri* caste except the families of the Sun and Moon, and had divided the whole of their dominions among the *Bráhmans*, these favourites of heaven were still dissatisfied, and continued to importune the god for more charity. To free himself from their solicitations, which he could not resist, he created *Kerala*, and retired thither: but he was followed by the *Bráhmans*, who extorted from the god the whole also of this new creation. For many ages the *Bráhmans* retained possession of *Kerala*, and lived under a number of petty chiefs of their own caste, who were called *Poties*. Dissensions, petty wars, assassinations, and every other sort of disorder, became so common under this kind of government, that the *Bráhmans* of *Malayala*, who are called *Namburis*, were forced to apply for a viceroy to govern them under the *Sholun Rajas*, who were at that time the most powerful princes in the south. Each of these viceroys was continued in power for twelve years, and a successor was then appointed by the sovereign. This continued until about a thousand years ago; when *Cheruman Permal*, having acquired great popularity during his viceroyalty, retained his government for twenty years. The *Sholun Raja*, called also *Permal*, enraged at this disloyalty, marched with an army into *Malayala*, and, having forced *Cheruman Permal* to retire into the forests, established his court at *Teravanji Callum*, a place now belonging to the *Cochi Raja*. There he reigned for some time; but at length the *Namburis*, who were extremely attached to *Cheruman Permal*, persuaded some of their own caste to undertake the assassination of the king. The chief of these murderers, having, from his rank and sacred character, gained admission to *Sholun Permal*, soon ingratiated himself so far into the prince's favour, that he and his companions were admitted into the inner apartments of the palace, while none of the guards nor servants were present. They embraced their opportunity, and, having cut the king's throat, made their escape to *Cheruman Permal*; who, taking advantage of the confusion occasioned by their crime, re-established his authority over all *Malayala*. About this time the Arabs had settled on the coast, where they carried on a great trade, and were called by the

1800. Dec. 1—4. natives *Moplaymar*. Some of their priests seem to have converted *Cheruman Permal*, who came to the resolution of retiring to Mecca. Having called a great assembly of the *Namburis* at a place called *Trishu meru vecadu nada swami covil*, he in their presence divided his dominions among his twelve principal chiefs, of whom five were of the *Kshatri* caste, and seven were *Nairs*, who are the *Sudras* of pure descent belonging to *Malayala*. He then retired to the place which we call *Calicut*, where he was to embark. He was met there by a *Nair*, who was a gallant chief; but who, having been absent at the division, had obtained no share of his master's dominions. *Cheruman Permal* therefore gave him his sword, and desired him to keep all he could conquer. From this person's sisters are descended the *Tamuri Rajas*, or *Zamorins*, who although among the most powerful of the chiefs of *Malabar*, were never acknowledged as their superiors, as in Europe has been commonly supposed. From the time of *Cheruman Permal*, until the time of *Hyder*, *Malayala* continued to be governed by the descendants of these thirteen chiefs' sisters; among whom, and among the different branches of the same families, there subsisted a constant confusion, and change of property; which was greatly increased by many inferior chiefs assuming sovereign power, although they abstained from the title of *Raja*. Many also of the former *Namburi Putties* continued to enjoy every jurisdiction of a sovereign prince. The country became thus subdivided, in a manner, of which, I believe, there is no example; and it was a common saying, that in *Malayala* a man could not make a step, without going out of one chief's dominions into those of another. *Hyder*, taking advantage of these dissensions, subdued the northern part of *Malayala*, or what is now called the province of *Malabar*; while the *Kerit Ram Raja* and *Cochi Raja* rendered all the petty chiefs of the southern part obedient to their authority. Both of them are descended from sisters of chiefs appointed by *Cheruman Permal*. The former whom we call the *Raja* of *Travancore*, has always retained his independence; but the *Cochi Raja* was compelled by *Tippoo* to pay tribute, as he does now to the Company. The violent bigotry and intolerance of *Tippoo* forced the greater part of the *Rajas*, *Nairs* and *Namburis*, either to fly to *Travancore*, or to retire into the forests, and other inaccessible places. On the landing of the British army, a good many of the *Nairs* and some of the *Rajas* joined it; and after the province was ceded to Lord Cornwallis, the *Rajas* were in general placed in authority over the countries that had formerly belonged to their families; but their government having been found such, that it could not be tolerated, or protected, consistent with the principles of humanity that influence Englishmen, they have in general been deprived of all authority, and are allowed one-fifth part of their country's revenue to support their dignity, which is more than any sovereign of consequence in Europe can spare for that purpose. Some of them, however, are in actual rebellion; some are refractory, and all are undoubtedly discontented; although before

the arrival of the British army they had been very wretchedly supported on the allowances which they received from the *Raja* of *Travancore*. It is alleged, that they are in some degree excusable; as promises, for corrupt purposes, were made to them by persons high in office, although perfectly unauthorised by government. 1800. Dec. 1–4.

Pali-ghat-shery, and the *Shekhury Raja*.

Pali-ghat-shery, on the division of *Malayala*, fell to the lot of *Shekhury Raja*, of the *Kshatri* caste; but as this family invited *Hyder* into the country, they are considered by all the people of *Malabar* as having lost caste, and none of the *Rájas* of *Kshatrya* descent will admit them into their company. To an European the succession in this family appears very extraordinary; but it is similar to that which prevails in the families of all the chiefs of *Malayala*. The males of the *Shekhury* family are called *Achuns*, and never marry. The ladies are called *Naitears*, and live in the houses of their brothers, whose families they manage. They have no husbands; but are not expected to observe celibacy, and may grant their favours to any person of the *Kshatri* caste, who is not an *Achun*. All the male children of these ladies are *Achuns*, all the females are *Naitears*, and all are of equal rank according to seniority; but they are divided into two houses, descended from the two sisters of the first *Shekhury Rajá*. The oldest male of the family is called the *Shekhury*, or first *Rájá*; the second is called *Ellea Rája*, the third *Cavashiry Rájá*, the fourth *Talan Tamburan Rájá*, and the fifth *Tariputamura Rájá*. On the death of the *Shekhury*, the *Ellea Rájá* succeeds to the highest dignity, each inferior *Rájá* gets a step, and the oldest *Achun* becomes *Tariputamura*. There are at present between one and two hundred *Achuns*, and each of them receives a certain proportion of the fifth of the revenue that has been granted for their support, and which amounts in all to 66,000 *Vir'-Raya Fanams* a year (1,638*l*. 9*s*. 8*d*.): but one-sixth part of this has been appropriated for the support of the temples. Formerly the whole was given to the head of the family; but, it having been found that he defrauded his juniors, a division was made for each, according to his rank; and every one receives his own share from the collector. Every branch of the family is possessed of private estates, that are called *Chericul* lands; and several of them have the administration of lands belonging to temples; but in this they are too closely watched by the *Namburis*, to be able to make any profit. The present *Shekhury Raja* is a poor looking stupid old man, and his abode and attendance are the most wretched of any thing that I have seen, belonging to a person who claimed sovereignty. His principal house, or *Colgum*, is called *Hatay Toray*, and stands about three miles north from the fort. He is now engaged in rebuilding the temple of *Bhagawat*, at *Callay Colam*; which was pulled down by *Tippoo*; but that bigot did not venture to destroy the image, which is in the form of a human hand. *Bhagawat* is the mother of *Parasu-rama*. She followed her son to the mountains above *Palighat*, and sat down there on a three-peaked hill. At the interces-

Temple of *Bhagawat*.

1800. Dec 1—4.

sion of the *Bráhmans*, she consented to appear at a certain hour in the tank called *Callay Colum.* On going thither at the appointed time, the *Bráhmans* found the image projecting from the water of the tank, and there it has remained for these eight thousand centuries. Two marks on a rock are shown, as the print of the deity's feet as she descended to the tank. They are of the human size.

Pali-ghat.

Around the fort of *Pali-ghat* are scattered many *Desas* (districts), *Agrarums* (villages), and two *Angadies*; all together containing a considerable population: but there is very little appearance of a town.

Angady.

In *Angady* is a street occupied by shops, or what in many other places of India is called a *Bazar.* Those here are rather mean.

Agrarum, or Gramam, or Village of Puttar Brahmans.

The *Agrarums* or *Gramams*, are villages occupied by *Puttar Bráhmans*, as they are here called; that is to say, by *Bráhmans*, who, coming from other countries, are not *Namburis*, and who are looked upon by the people of *Malayala* as inferior in rank; at which they are of course exceedingly offended. The houses of the *Gramas* are built contiguous, in straight streets; and they are the neatest and cleanest villages that I have seen in India. The beauty, cleanness, and elegant dress of the girls of the *Bráhmans* add much to the look of these places. Their greatest defect is, that the houses are thatched with palm leaves, which never can be made to lie close, and which render them very liable to fires, that when they happen generally consume the whole *Gramam.*

Both *Angadis* and *Gramams* have been introduced by foreigners; the *Namburis, Nairs*, and all aboriginal natives of *Malayala* living in detached houses surrounded by gardens, are collectively called *Désas.* The houses of the *Namburis, Nairs*, and other wealthy persons, are much better than those usually met with in the villages of India. They are built of mud, so as generally to occupy two sides of a square area, that is a little raised, and kept clean, smooth, and free from grass. The mud is of an excellent quality, and in general is neatly smoothed, and either whitewashed or painted. These higher ranks of the people of *Malayala* use very little clothing, but they are remarkably clean in their persons. Cutaneous disorders are never observed, except among the slaves, and lowest orders; and the *Nair* women are remarkably careful, by repeated washings with various saponaceous plants, to keep their hair and skins free from every impurity, a thing very seldom sufficiently attended to among the natives of India.

Money.

Money.

Accompts are kept in *Feringy*, or *Porto-Novo Pagodas*, or *Varahuns; Pudamani*, commonly called *Vir'-Raya Fanams*; and *Cash.* I have already mentioned the intrinsic value of the two gold coins. No *Vir'-Raya Fanams* are current, but those of the last coinage struck at *Calicut.* The Madras *Rupee* at present exchanges for $3\frac{3}{4}$ *Vir'-Raya Fanams*, $2\frac{1}{2}$ *Cash.* A vast variety of other coins are current in the country, but not in any considerable quantity: *Couries*

are not in use. A *Bráhman* has the exclusive privilege of coining 1800.
copper money, which is every year recoined. He pays a certain Dec. 1–4.
sum annually to government, and at the beginning of the year issues out his money at the rate of 22 *Cash* for the *Vir'-Raya Fanam.* He buys in the old ones at the rate of 40 for the *Fanam.* The value of the *Cash* therefore gradually sinks toward the end of the year, until it falls to be the 40th part of a *Fanam,* below which it never can descend. The Company's *Niruc,* or rate of exchange, is necessarily varied occasionally, and is generally altered according to the representations of the money-changers. The exchange of the *Pagoda* into *Fanams* is very variable, and alters from $11\frac{1}{4}$ to $11\frac{3}{4}$; so that a profit of from $11\frac{1}{4}$ to $11\frac{3}{4}$ per cent. may be had by bringing *Porto-Novo Pagodas* from *Daraporam* to *Pali-ghat,* and carrying back the *Vir'-Raya Fanams.* The *Batta,* or allowance made to the money-changer, for giving *Fanams* for *Pagodas,* is 2 *Cash* for each *Pagoda.*

Weights.

Weights.

9 *Pondichery Rupees* and 1 *Cash*	=	1 *Polam*	=	1624 gr.
$2\frac{1}{2}$ *Polams*	=	1 *Seer*	=	4060 gr.
5 *Seers*	=	1 *Visay*	=	2·89906 lbs.
8 *Visays*	=	1 *Tolam*	=	23·19248 lbs.

By this are sold *Betel-nut,* black pepper, turmeric, ginger, sugar, and other *Sweets*; onions, tamarinds, sandal-wood, wax, *Dupada* gum; tin and other metals; cotton and thread.

Grain Measure.

The merchants sell by the following standard; 84 *Pondichery* Dry-measure.
Rupees (each weighing 177 grains) weight of rice fill a *Puddy* measure, which by actual measurement I found to contain $79\frac{875}{1000}$ cubical inches. 9 *Puddies* are equal to 1 *Poray,* which is therefore about $1\frac{3375}{10000}$ peck.

The farmers divide their *Poray* into 10 *Edangallies;* and about 100 *Puddies* being equal to 111 or 110 *Edangallies,* the two *Porays* ought to be nearly the same. Government have affixed a stamp to the *Tolam* and *Puddy,* to ascertain their being according to standard. The other denominations of measures are made up in various rude manners, and differ so much from each other, that in all bargains for goods it is customary to specify the person's weights and measures by which they are to be delivered.

By the grain measure are also sold mustard, capsicum, oil, and *Ghee* or boiled butter.

Land Measure.

No land measure has ever existed at *Pali-ghat*; but the natives Land measure.
form computations of extent by saying, that such or such a space of ground is a *Poray-candum,* or what ought to be sown with a *Poray* of rice-seed. It being a matter of great importance to ascertain the extent of a *Poray-candum,* I used much pains in endeavouring to come at the truth; but I met with such opposition, from

1800. Dec 1–4.

the fears of the natives of all ranks, that I could ascertain nothing to my own satisfaction. The field that seemed to me best ascertained as a *Poray* sowing measured 7622 square feet; but Mr. Warden informs me, that, after my departure, he made particular enquiries on the subject; and the result of these, which he considers as not liable to material error, is, that the *Poray* sows a field of 58 feet square. One acre therefore contains about $12\frac{95}{100}$ *Porays.*

Time.

Calendar.

The people of *Malayala* reckon by the era of *Parasu-rama,* and divide it into cycles of one thousand years. This is reckoned the 976th year of the cycle: but as their year consists of 365 days, without any means of intercalation, its commencement must constantly, though slowly, be varying through the seasons. The following is a TABLE of the current year, with the corresponding days of our calendar.

Tamul Months.		European Months.		*Tamul* Months.		European Months.	
Canni 976 ...	1	14	September 1800.	*Tulam* 976. ...	5	19	October 1800.
	2	15			6	20	
	3	16			7	21	
	4	17			8	22	
	5	18			9	23	
	6	19			10	24	
	7	20			11	25	
	8	21			12	26	
	9	22			13	27	
	10	23			14	28	
	11	24			15	29	
	12	25			16	30	
	13	26			17	31	
	14	27			18	1	November.
	15	28			19	2	
	16	29			20	3	
	17	30			21	4	
	18	1	October.		22	5	
	19	2			23	6	
	20	3			24	7	
	21	4			25	8	
	22	5			26	9	
	23	6			27	10	
	24	7			28	11	
	25	8			29	12	
	26	9			30	13	
	27	10		*Vrichica*... ...	1	14	
	28	11			2	15	
	29	12			3	16	
	30	13			4	17	
	31	14			5	18	
Tulam	1	15			6	19	
	2	16			7	20	
	3	17			8	21	
	4	18			9	22	

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Tamul Months.			European Months.	*Tamul* Months.			European Months.
Vrichica 976 ...	10	23	November 1800.	*Macara* 976 ...	5	16	January 1801.
	11	24			6	17	
	12	25			7	18	
	13	26			8	19	
	14	27			9	20	
	15	28			10	21	
	16	29			11	22	
	17	30			12	23	
	18	1	December.		13	24	
	19	2			14	25	
	20	3			15	26	
	21	4			16	27	
	22	5			17	28	
	23	6			18	29	
	24	7			19	30	
	25	8			20	31	
	26	9			21	1	February.
	27	10			22	2	
	28	11			23	3	
	29	12			24	4	
Danu...	1	13			25	5	
	2	14			26	6	
	3	15			27	7	
	4	16			28	8	
	5	17			29	9	
	6	18		*Cumbha.* ...	1	10	
	7	19			2	11	
	8	20			3	12	
	9	21			4	13	
	10	22			5	14	
	11	23			6	15	
	12	24			7	16	
	13	25			8	17	
	14	26			9	18	
	15	27			10	19	
	16	28			11	20	
	17	29			12	21	
	18	30			13	22	
	19	31			14	23	
	20	1	January 1801. ...		15	24	
	21	2			16	25	
	22	3			17	26	
	23	4			18	27	
	24	5			19	28	
	25	6			20	1	March.
	26	7			21	2	
	27	8			22	3	
	28	9			23	4	
	29	10			24	5	
	30	11			25	6	
Macara...	1	12			26	7	
	2	13			27	8	
	3	14			28	9	
	4	15			29	10	

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Tamul Months.		European Months.		*Tamul* Months.		European Months.	
Cumbha 976 ...	30	11	March 1801.	*Mayda* 976.	24	4	May 1801.
Mina. ...	1	12			25	5	
	2	13			26	6	
	3	14			27	7	
	4	15			28	8	
	5	16			29	9	
	6	17			30	10	
	7	18			31	11	
	8	19		*Ayduma* ...	1	12	
	9	20			2	13	
	10	21			3	14	
	11	22			4	15	
	12	23			5	16	
	13	24			6	17	
	14	25			7	18	
	15	26			8	19	
	16	27			9	20	
	17	28			10	21	
	18	29			11	22	
	19	30			12	23	
	20	31			13	24	
	21	1	April.		14	25	
	22	2			15	26	
	23	3			16	27	
	24	4			17	28	
	25	5			18	29	
	26	6			19	30	
	27	7			20	31	
	28	8			21	1	June.
	29	9			22	2	
	30	10			23	3	
Mayda. ...	1	11			24	4	
	2	12			25	5	
	3	13			26	6	
	4	14			27	7	
	5	15			28	8	
	6	16			29	9	
	7	17			30	10	
	8	18			31	11	
	9	19		*Maytuna.*	1	12	
	10	20			2	13	
	11	21			3	14	
	12	22			4	15	
	13	23			5	16	
	14	24			6	17	
	15	25			7	18	
	16	26			8	19	
	17	27			9	20	
	18	28			10	21	
	19	29			11	22	
	20	30			12	23	
	21	1	May.		13	24	
	22	2			14	25	
	23	3			15	26	

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Tamul Months.			European Months.
Maytuna 976 ...	16	27	June 1801.
	17	28	
	18	29	
	19	30	
	20	1	July.
	21	2	
	22	3	
	23	4	
	24	5	
	25	6	
	26	7	
	27	8	
	28	9	
	29	10	
	30	11	
	31	12	
	32	13	
Carcataca.	1	14	
	2	15	
	3	16	
	4	17	
	5	18	
	6	19	
	7	20	
	8	21	
	9	22	
	10	23	
	11	24	
	12	25	
	13	26	
	14	27	
	15	28	
	16	29	
	17	30	
	18	31	
	19	1	August
	20	2	
	21	3	
	22	4	
	23	5	

Tamul Months.			European Months.
Carcataca 97.	24	6	August 1801.
	25	7	
	26	8	
	27	9	
	28	10	
	29	11	
	30	12	
	31	13	
Singhium.	1	14	
	2	15	
	3	16	
	4	17	
	5	18	
	6	19	
	7	20	
	8	21	
	9	22	
	10	23	
	11	24	
	12	25	
	13	26	
	14	27	
	15	28	
	16	29	
	17	30	
	18	31	
	19	1	September.
	20	2	
	21	3	
	22	4	
	23	5	
	24	6	
	25	7	
	26	8	
	27	9	
	28	10	
	29	11	
	30	12	
	31	13	

Having assembled the principal merchants, they gave me the following account of their commerce. They are chiefly of the kind called *Tarragamar*, who are a sort of brokers, or rather warehouse-keepers. They have storehouses, in which the merchants coming from the east or west deposit their goods, until they can dispose of them to those coming from the opposite quarter. The principals in general remain to make in person their sales and purchases; but some of them, that are rich, employ the *Tarragamar* of this place to sell their goods. The merchants that frequent this mart are those of *Colicodu* (*Calicut*), *Tirurana-angady*, *Panyani-Waral* (*Paniany*), *Parupa-nada*, *Tanur* (*Tannore*), *Manapuram*, *Valatire*, *Manjery*, Commerce.

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Puten-angady, *Shavacadu* (*Chowghat*), and *Cochi* (*Cochin*) on the west: and *Coimbetore*, *Dindigul*, *Daraporam*, *Saliem*, *Sati-mangala*, *Palani* (*Pulni*), *Wudumalay-cotay*, *Tritchenopoly*, *Tanjore*, *Madura*, *Tinivelly*, *Madras*, and *Seringapatam* from the east.

The broker is not answerable for fire, or theft; nor is he even bound to pay any loss that may happen from the badness of his storehouses. The commission is ¼ of a *Fanam* on every *Tolam* of weighable goods, whether they be stored seven days or one year, which is at the rate of 7⅓*d.* a hundred weight. Cloth-merchants always sell their own goods. On each load, they pay as warehouse rent half a *Fanam*. The brokers say, that during the reign of *Tippoo* they had a more extensive trade than at present. Even after *Malabar* fell into the hands of the English, the trade with *Coimbetore* was not interrupted. These assertions appear to me highly improbable; but I am not able to ascertain the truth; for the reports of the custom-house, which Mr. Warden was so good as to send me, through the commissioners, have not reached my hands.

Manufactures.

The weavers here are very few in number, and make only very coarse cloth: but at *Colangodu* all the kinds are made that are wrought at Coimbetore. The quantity, however, is very inadequate to the supply of the country. The weavers are all of foreign extraction, from above the *Ghats*, or from the eastward; and are all either *Devangas* or *Coicular*. The looms employed in the whole district, according to the returns made to the collector, are 552.

Property of the soil vested in the *Namburis*.

I have already mentioned, that the *Namburis* pretend to have been possessed of all the landed property of *Malayala*, ever since its creation; and in fact it is well known, that before the conquest by *Hyder*, they were the actual lords of the whole soil, except some small parts, appropriated to the support of religious ceremonies, and called *Devastanah*; and other portions called *Cherical*, which were appropriate for supporting the families of the *Rajas*. All the remainder, forming by far the greater part, was the *Jenm* or property of the *Namburi Brahmans*; and this right was, and by them is still considered as unalienable: nor will they allow, that any other person can with propriety be called a *Jenmcar*, or proprietor of land. As, however, both duty and inclination prevented the *Namburis* from attending to the management of their lands, they took various means of obtaining an income from the *Sudras*, to whom they granted a temporary right of occupancy.

The whole of this district may be divided into two portions; the one of which is well inhabited, and much cultivated; the other is covered with thick uninterrupted forests, among which are scattered a few villages of the rude tribes, who subsist by collecting the productions of these wilds.

I shall endeavour in the first place to describe the state of the cultivated part; and in doing so, I must express my thanks to Mr. Smee, one of the commissioners, who was so good as to give me a very satisfactory report, that he formed when employed in valuing

the middle and southern divisions of *Malabar*; and also to Mr. Warden, for the pains which he bestowed in answering the statistical queries that I proposed to the collectors of *Malabar*. 1800. Dec. 1–4.

Mr. Warden states the houses of the inhabited part of his district to be as follow: Population.

Occupied by the families of *Rajas*	42
by *Nazaranis*	13
Mussulmans...	1469
Namburis...	137
Puttar Bráhmans	3309
Nairs	4292
Artificers, tradesmen, &c.	2329
Shanars, or *Tiars*.	4287
Fishermen	539
People of *Karnata*, or *Chera*... ...	5054
Total houses... ...	21,473

From an enumeration of the houses and persons in the southern district of *Canara*, who live in a state of society similar to that here, the number of houses may be multiplied by $4\frac{916}{1000}$ to give the number of persons. This will give... 106,500

Add *Churmar*, or slaves... 16,574

Total population... ... 123,074

This is exclusive of military, camp followers, travellers, vagrants, &c. &c. From an enumeration of the inhabitants in one of the districts of *Malabar*, given by Mr. Baber, the number of persons in each house is $3\frac{6755}{10000}$ nearly. This would reduce the number of free persons in Mr. Warden's circle to 78,925

Add slaves 16,574

Total inhabitants... ... 95,499

but I think the estimate formed on the enumeration by Mr. Ravenshaw more likely to be true.

The extent of inhabited country, as stated by Mr. Warden, is given in the accompanying TABLE. He was at the pains to consult all the land-holders in this district, and to procure from each a computation of the different kinds of ground in the *Desam* to which he belonged. This computation was made by estimating how many *Porays* of rice such an extent would sow. From the extent contained in the Table, however, some deduction must be made in the article of *Ubayum* lands. Mr. Warden, in this article, followed Mr. Smee's calculation of the number of *Porays* of seed sown; without recollecting, that a considerable proportion of this kind of land is sown twice a year. Say that this is the case with one-fourth part of it, and we must reduce the *Ubayum* land now cultivated to 581,021 *Porays*, and to 46,862⅕ acres; and the general total to 792,941½ *Porays*, and to 60,540 acres; for it must be Extent of the country, and of the various soils of which it is composed.

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observed, that Mr. Warden, after much inquiry, fixes the land sown with a *Poray* of rice at 58 feet square. According to these estimates, we have a country containing 60,540 acres, and these by no means all cultivated, and yet maintaining 123,000 inhabitants. This is at the rate of 1300 inhabitants to the British square mile, which appears to me impossible; especially considering that there are few or no towns in the country, and few or no manufactures; and still more so, considering that large quantities of grain are exported. That the population is not exaggerated, I have strong reason to think. From Mr. Smee's valuation of the districts under Mr. Warden, it would appear, that the average quantity of rice in the husk annually produced there, after deducting seed, amounts in round numbers to 6,500,000 *Porays*. Now, allowing one *Edangally* daily for every person, which is a reasonable maintenance, the annual consumption of 123,000 persons in round numbers will be 4,500,000 *Porays*, leaving 2,000,000 *Porays*, or almost a third of the whole produce, for exportation. I omit bringing to account the other grains raised in these districts, as they are of no great importance, and are not more than sufficient to make up for the maintenance of strangers, vagrants, and cattle. I suspect, therefore, that Mr. Warden's estimate of the extent of a *Poray* land is inadmissible. Even taking the *Poray* lands to be all of the same size with the one that I measured, the population will amount to 567 souls to the square mile, and that is more than can be reasonably allowed. Mr. Baber's estimate of the numbers of persons being taken would indeed reduce the number to 440 persons in the square mile; but I am more inclined to think that the dimensions of the territory are diminished, than that the number of inhabitants is over-rated. However, as I have no better data to proceed on, I consider the *Poray* sowing of land to be equal to 7622 square feet, and, on that supposition, give a corrected Table.

Poray-candum.

Table explaining the state of the inhabited part of Mr. Warden's district in *Malabar*, according to his estimate of the *Poray-candum*.

	Porays.	Acres.	*Porays.*	Acres.
A Lands too rocky, steep, or barren, for cultivation			40,189½	3,103½
B Lands that are arable, or that might be made so:				
I. *Dhanmurry*, or *Paddum*-land.				
a. Now actually cultivated.				
1. *Palealil* *Porays* 32,184, acres 2,485				
2. *Ubayum*, ditto 726,276, ditto 56,092¾				
Total cultivated	758,460	58,577¾		
b. At present waste, but formerly cultivated ...	39,751	3,067½		
c. That never have been cultivated	300	23¼		
Total *Dhanmurry* or *Paddum*-land			798,511	61,668½
II. *Parumba* lands.				
a. At present occupied by houses, gardens, and plantations	32,392	2,501½		
b. At present in rotation for various kinds of grain ...	49,659	3,835		
c. Not lately employed nor cultivated	15,445	1,192¾		
d. That never has been cultivated	2,000	154¼		
Total *Parumba* lands ..			99,496	7,683½
Total inhabited lands			938,196½	72,455½

The preceding Table corrected according to my Estimate of the *Poray-candum*.

	Porays.	Acres.	*Porays.*	Acres
A. Lands too rocky, steep, or barren, for cultivation			40,189½	7,032½
B. Lands arable, or that might be made so				
I. *Dhanmurry*, or *Paddum*-lands.				
a. Now actually cultivated.				
1. *Palealil* *Porays* 32,184 acres 5,631½				
2. *Ubayum* ... 581,021 ... 101,667				
Total *Paddum*-land cultivated..	613,205	107,298½		
b. At present waste, but formerly cultivated ...	39,751	6,956		
c. That never have been cultivated	300	52½		
Total *Paddum* land			653,256	114,307
II. *Parumba* lands.				
a. At present occupied by houses, gardens, and plantations	32,392	5,668		
b. At present in rotation for various kinds of grain ...	49,659	8,690		
c. Not lately cultivated	15,445	2,703		
d. That never have been cultivated	2,000	350		
Total *Parumba* land ...			99,496	17,411
Total inhabited land ...			792,941½	138,750½

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The lands capable of cultivation in this province are of two kinds: the one called by the natives, *Paddum*, or *Padda* land; the other *Parum*, or *Parumba*.

Paddum land.

The *Paddum* land is by the Mussulmans called *Dhanmurry*, and *Batty* field by the English gentlemen of the Bombay establishment; but there can be little doubt, that this is the origin of the word *Paddy-field* used by the gentlemen of Madras, and which from thence has been carried to Bengal, and extended to the grain usually cultivated in such fields. It comprehends all the lower grounds of the province, which are cultivated almost solely for rice.

Parum land.

The *Parum* land by the Mussulmans is corrupted into *Perm*, or *Purm*, in which they have been generally followed by Europeans. It consists of the higher grounds, generally formed into terraces, and is partly occupied by the houses, gardens, and orchards or plantations; partly reserved for pasture; and partly cultivated with a peculiar kind of rice, and with various pulses and grains.

Plantations.

There being very few plantations in the neighbourhood of *Palighat*, I shall confine my account of the cultivation to the arable lands, and only state the extent of the plantations from the authority of Mr. Smee.

Coco-nut palms (*Cocos nucifera*).	Total 53,305.	In full bearing		26,027
Betel-nut ditto (*Areca catechu*). ...	101,897	...	...	35,556
Jack trees (*Artocarpus integrifolia*).	18,089	...	...	8,840
Pepper vines (*Piper nigrum*)... ...	13,316	...	...	4,365
Brab palms (*Borassus flabelliformis*)	622,801	...	...	133,619

Borassus.

The palm, which in *Malabar* is called *Brab* by the English, is in such immense quantity, that the *Jagory* prepared from it commonly sells at 1 *Fanam* a *Tolam*, or about 2*s*. 7½*d*. for the hundred-weight. I am persuaded, that, with proper care, an excellent spirit might be extracted from this; and no place seems more favourable for the experiment than *Palighat*.

Tenures in *Malayala*.

I now return to the manner in which the *Namburi* proprietors managed their arable lands; for, as I have before mentioned, almost the whole of *Malayala* was the property of these *Bráhmans*.

Jenm Patom.

Before the invasion of *Hyder*, a few of them cultivated their estates by means of their slaves, called in this country, in the singular, *Churmun*, but collectively *Churmar* or *Churmacul*. These industrious *Bráhmans* were said to receive the *Jenm Patom*, or full produce of their lands.

Vir'-Patom.

A much greater number of the landlords let their lands to farmers called *Cudians*, for what was called *Vir'-Patom*, or neat produce. The allowance made to these farmers was very small. They deducted from the gross produce the quantity of seed sown, and an equal quantity, which was the whole granted them for their stock and trouble; and they gave the remainder to the landlord under the name of *Vir'-Patom*, or neat produce. This was a tenure very unfavourable to agriculture. The farmer had no immediate interest in raising more than two seeds, of which he was always sure: and

the only check upon him was the fear of being turned away from his farm, which was a very inadequate preventive against indolence, where the reward for industry was so scanty. 1800 Dec. 1—4.

By far the greater part of the arable lands, however, had been long mortgaged, or granted on *Canum*. When a man agreed to advance money on a mortgage, the proprietor and he determined upon what was to be considered as the neat produce (*Vir'-Patom*) of the land to be mortgaged. The person who advanced the money, and who was called *Canumcar*, took upon himself the management of the estate, and gave a sum of money, the interest of which, at the usual rate of 10 per cent. per annum, was deducted from the neat produce; and the balance, if any remained, was paid to the proprietor of the estate. Sometimes the balance was fixed in money; at other times the proprietor was allowed, instead of it, a certain portion of the gross produce in kind, such as a fifth and a tenth. The proprietor always reserved a right of reassuming the estate whenever he pleased, by paying up the sum originally advanced, and no allowance was made for improvements. This tenure also is evidently unfavourable to agriculture; as no prudent man would lay out money on an estate, of which he might be deprived whenever he had rendered it more valuable. The fact is, however, that this right of redemption was rarely exercised by the *Namburis*; and from the existing bonds it is known, that the same family, for many generations, has continued to hold estates in mortgage. This I consider as a clear proof, that this tenure prevented improvement; and that agriculture, as an art, was at least not progressive. Before the conquest of *Hyder*, the mortgagees were mostly *Nairs*; but after this event many *Moplays*, and still more *Puttar Bráhmans*, acquired that kind of property; and now many *Shanars*, and other persons of low caste, have become *Canumcars*. *Canum*, or mortgage.

Under the government of the *Rájás* there was no land-tax; but the conqueror soon found the necessity of imposing one; as the expenses of his military establishment greatly exceeded the usual revenues. The low ground (*Puddum*) was the only part of the arable land on which this tax called *Negadi* was imposed. The reason of this seems to have been, that had the *Parumba*, or high grounds, been taxed, almost the whole property of the *Namburis* would have been annihilated. The *Negadi* of course fell upon them first, and the share which they had reserved in the mortgage bonds being totally inadequate to pay this tax, the interest of the proprietors in the assessed lands entirely ceased, and the balance fell upon the mortgagees (*Canumcars*), who were very well able to pay it. The small profits arising from the high (*Parum*) lands were left entire to the proprietors (*Jenmcars*), to prevent them from falling into absolute want; but they were all reduced to great comparative poverty. *Negady*, or land-tax.

The violent outrages of *Tippoo* having forced most of the *Namburis*, in order to avoid circumcision, to fly to *Travancore*, many of *Condition of the Jenmcars.*

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the families have perished, and the mortgagees on their estates have in general assumed the title of *Jenmcars*, and in fact enjoy all the rights belonging to that class of proprietors. It is pretended, that, when the *Namburis* fled, being in want of money, they sold their estates fully, and took the whole balance of the value of the (*Vir'-Patom*) neat produce.

Patom, or usual rent.

Many of the mortgagees, and other landholders, now let their lands to (*Cudians*) tenants; but they can seldom procure any person who will give the (*Vir'-Patom*) neat produce. The leases in general are for three years, and the annual rent is fixed, and always paid in. This is what is commonly called the *Patom*, or produce of an estate. When the landholder is poor, he is under the necessity of allowing the farmer to pay the land-tax, who of course says, that he is obliged to sell his rice at the lowest rate, and therefore charges a large share of the produce as expended for this purpose; but landholders in tolerable circumstances keep their grain until it rises to a medium price, and discharge the land-tax themselves.

Deva-stanum and *Cherical* land.

The *Déva-Stanum*, or temple-lands, and those called *Cherical*, which belong to the *Rájás*, were under the management of these chiefs, and were let out exactly like those of the *Namburis*. The temple-lands were exempted by *Hyder* from the assessment: but the *Cherical* lands were considered as private property. *Tippoo* seized on the former, and they are now subject to the tax; but they still yield a profit, and are managed by the *Rájá* for the benefit of the temples.

Profits of the farmers and landholders.

According to the account of the principal proprietor here, the *Patom*, or rent paid for a *Poray* sowing of land, varies from 5 to 2 *Porays* of grain. That which pays the high rent produces two crops in the year; that which pays the low rent produces only one crop; so that the crops are considered as not varying greatly in value from a difference in soil; and the average rent for one crop may be about $2\frac{1}{4}$ *Porays* for one *Poray-sowing*. According to Mr. Smee's estimate, in which I place great confidence, the average produce of rice in this district of *Pali-ghat*, after deducting 10 per cent. for contingencies, is $7\frac{1}{8}$ seeds. This, deducting $4\frac{1}{4}$ for rent and expense of every kind, leaves $2\frac{7}{8}$ for clear gain to the farmer, or rather more than 40 per cent. on the gross produce. The proprietor of the land therefore, were the land-tax to exhaust the whole rent, and were he in consequence reduced to the necessity of cultivating his estate on his own account, would be in a much better condition than farmers are in general in India; but they are by no means reduced to this state, although in general they now cultivate as much of their own lands as they can conveniently superintend. The whole (*Dhanmurry*) low land is assessed here at a tax of $1\frac{1}{4}$ *Fanam* for what is called a *Poray-land*; but it is absurd to suppose, that land paying five seeds, and that paying two, could be equally assessed; these *Porays* are merely imaginary, and the taxed imposed by *Hyder* was on the supposition that the land paid

five seeds; and where that was not the case, so much land as made up the deficiency was included in the accompts as one *Poray-land.* Mr. Smee values the rice at $2\frac{9}{10}$ *Porays* for a *Fanam*; which indeed is its price when lowest, and the market glutted, after harvest. According to this valuation, the proprietor of the land would pay 84 per cent. of his neat rent as land-tax, which is more than the *Zemindars* of Bengal in general pay; and some necessitous men may be forced to do this; but men of common prudence, unless the revenue be collected at unreasonable seasons, ought to expect a medium price for their grain, and that is two *Porays* for the *Fanam*; so that the land-tax would exhaust 60 per cent. of the neat rent. This is, no doubt, a heavy tax, and must have greatly distressed individuals not accustomed to pay a land-tax of any kind, and must also have annihilated the remaining property of those whose estates were involved in mortgages: still, however, the present occupants of the ground possess a much larger property in it than is usual in India.

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Cudians, or farmers.

Some poor men, chiefly of the *Shanar* caste, cultivate with their own hands the lands which they hold as farmers (*Cudians*); but *Bráhmans* never labour, and the *Nairs* or *Moplays* very rarely.

Churmar, or slaves.

By far the greater part of the labour in the field is performed by slaves, or *Churmar*. These are the absolute property of their *Devarus*, or lords, and may be employed in any work that their masters please. They are not attached to the soil, but may be sold, or transferred in any manner that the master thinks fit, only a husband and wife cannot be sold separately; but children may be separated from their parents, and brothers from their sisters. The slaves are of different castes, such as *Parriar, Vullam, Canacun, Erilay,* &c.; and the differences in the customs by which the marriages of these castes are regulated occasion a considerable variation in the right of the master to the children of his slaves, according to the caste to which they belong. The master is considered as bound to give the slave a certain allowance of provisions: a man or woman, while capable of labour, receives two *Edangallis* of rice in the husk weekly, or two-sevenths of the allowance that I consider as reasonable for persons of all ages included. Children, and old persons past labour, get one-half only of this pittance; and no allowance whatever is made for infants. This would be totally inadequate to support them; but the slaves on each estate get one-twenty-first part of the gross produce of the rice, in order to encourage them to care and industry. A male slave annually gets seven cubits of cloth, and a woman fourteen cubits. They erect for themselves small temporary huts, that are little better than large baskets. These are placed in the rice fields while the crop is on the ground, and near the stacks while it is thrashing.

Tenures by which slaves are held.

There are three modes of transferring the usufruct of slaves. The first is by *Jenmum*, or sale, where the full value of the slave is given, and the property is entirely transferred to a new master, who

1800. Dec. 1—4. is in some measure bound by his interest to attend to the welfare of his slave. A young man with his wife will sell for from 250 to 300 *Fanams*, or from 6*l.* 4*s.* 1½*d.* to 7*l.* 8*s.* 11½*d.* Two or three young children will add 100 *Fanams*, or 2*l.* 9*s.* 7¾*d.* to the value of the family. Four or five children, two of whom are beginning to work, will make the family worth from 500 to 600 *Fanams*, or from 12*l.* 8*s.* 3*d.* to 14*l.* 17*s.* 11*d.* The second manner of transferring the labour of slaves is by *Canum*, or mortgage. The proprietor receives a loan of money, generally two-thirds of the value of the slaves; he also receives annually a small quantity of rice, to show that this property in the slaves still exists; and he may reassume this property whenever he pleases to repay the money borrowed, for which in the mean while he pays no interest. In case of any of the slaves dying, he is held bound to supply another of equal value. The lender maintains the slaves, and has their labour for the interest of his money, and for their support. The third manner of employing slaves is by letting them for *Patom*, or rent. In this case, for a certain annual sum, the master gives them to another man; and the borrower commands their labour, and provides them with their maintenance. The annual hire is 8 *Fanams* (3*s.* 11½*d.*) for a man, and half as much for a woman. These two tenures are utterly abominable; for the person who exacts the labour, and furnishes the subsistence of the slave, is directly interested to increase the former and diminish the latter as much as possible. In fact, the slaves are very severely treated; and their diminutive stature, and squalid appearance show evidently a want of adequate nourishment. There can be no comparison between their condition and that of the slaves in the West India islands, except that in *Malabar* there are a sufficient number of females, who are allowed to marry any person of the same caste with themselves, and whose labour is always exacted by their husband's master, the master of the girl having no authority over her so long as she lives with another man's slave. This is a custom that ought to be recommended to our West India planters; and, if adopted, I am persuaded, would soon induce the Negro women to breed, and would give a sufficient supply of inhabitants, without having recourse to an annual importation from Africa.

Management of a farm. Five families of slaves, probably amounting to 24 persons of all ages, are adequate to cultivate 200 *Porays* of rice-land, which according to my estimate is a little more than 35 acres. They require five ploughs and ten oxen, of which two ought to be of large size. Now I know, that in Bengal a plough cultivates about 7½ acres of rice-land, which confirms my opinion of the extent of a *Poray* of land. A farmer with such a stock as that above-mentioned is reckoned a substantial man, and hires a servant to superintend his slaves. All the morning he sits in his house, washes his head and prays; then eats his dinner quietly at home, and once a day takes a walk round his farm, and gives his orders. The superintendant

is a yearly servant, and is not expected to perform any labour with his hands. He gets 16 *Fanams* worth of cloth, and from 24 to 32 *Fanams* a year in cash, with from eight to ten *Porays* of rough rice a month, and one *Puddy* of *Sesamum* oil; so that he is able to maintain a family. This account is given me by the farmers themselves. **1800. Dec. 1–4.**

Cultivation of rice.

I shall now proceed to give an account of the cultivation of the land called *Paddum* or *Dhanmurry*, which I took from three *Shanar* farmers, who were intelligent men, but who either actually were, or pretended to be, afraid of giving offence to the landlords. In all their estimates of seed, produce, and rent, they were guided by an average of the computed *Porays*, which I find impossible to reduce to any standard; and indeed for the same extent of ground, the different modes of culture require different quantities of seed.

Quantity of seed required for an acre.

If a *Poray* be sown on 58 feet square, according to Mr. Warden's estimate, an acre would require almost $4\frac{1}{4}$ bushels of seed; but by my estimate, it will require rather less than two bushels, which is more than is usually sown in other parts of India. From what I afterwards learned, I am persuaded that the quantity of seed required for an acre in *Malabar* is from 2 to $2\frac{1}{2}$ bushels an acre, and more commonly nearer the last than the first quantity. According to Mr. Smee's calculation, the average produce of a *Poray* sowing, including all Mr. Warden's district, is $7\frac{1}{2}$ *Porays*; which, according to Mr. Warden's estimate, would make the produce of an acre $32\frac{1}{2}$ bushels; but according to my measurement $14\frac{1}{3}$ bushels, and according to the last mentioned estimate $16\frac{1}{4}$ bushels.

Cultivation of *Paddum* land. Sugar-cane.

The only article of any consequence that is cultivated in the *Paddum* land is rice. A little sugar-cane has been lately introduced; but it is planted only in small spots by the sides of tanks, or on the banks of rivulets. These places are not included in the lands assessed by government, but they pay rent to the landlord.

Rice, Irrigation.

The rain is every where sufficient to bring one crop of rice to maturity; and in the lower grounds a second crop of rice may be depended on, wherever small reservoirs have been constructed to give a few weeks supply toward the ripening of the corn after the rainy season has abated. These have been formed, and are kept up, at the expense of the landlords. The declivity of the country is in general such, that, whenever the cultivators please, all superfluous water can be let off, and the fields may again at pleasure be inundated; and by custom, a regular plan of watering every valley has been established; so that the caprice or malice of those who occupy one part of it may not prevent their neighbours from receiving the usual supply. In some places, where there is not a sufficient level, the superfluous water is thrown off by a basket suspended between four ropes, and wrought by two men; a manner of raising water practised in China, as well as in every part of India.

The *Dhanmurry*, or rice-field, is divided into two kinds; the one called *Palealil*, and the other *Ubayum*.

1800. Dec. 1—4. *Palealil* lands.

The *Palealil* lands are the higher parts of the rice-ground, and never produce more than one crop in the year. On this kind of land two sorts of rice are cultivated, the *Navara* and the *Mundu-pallay*.

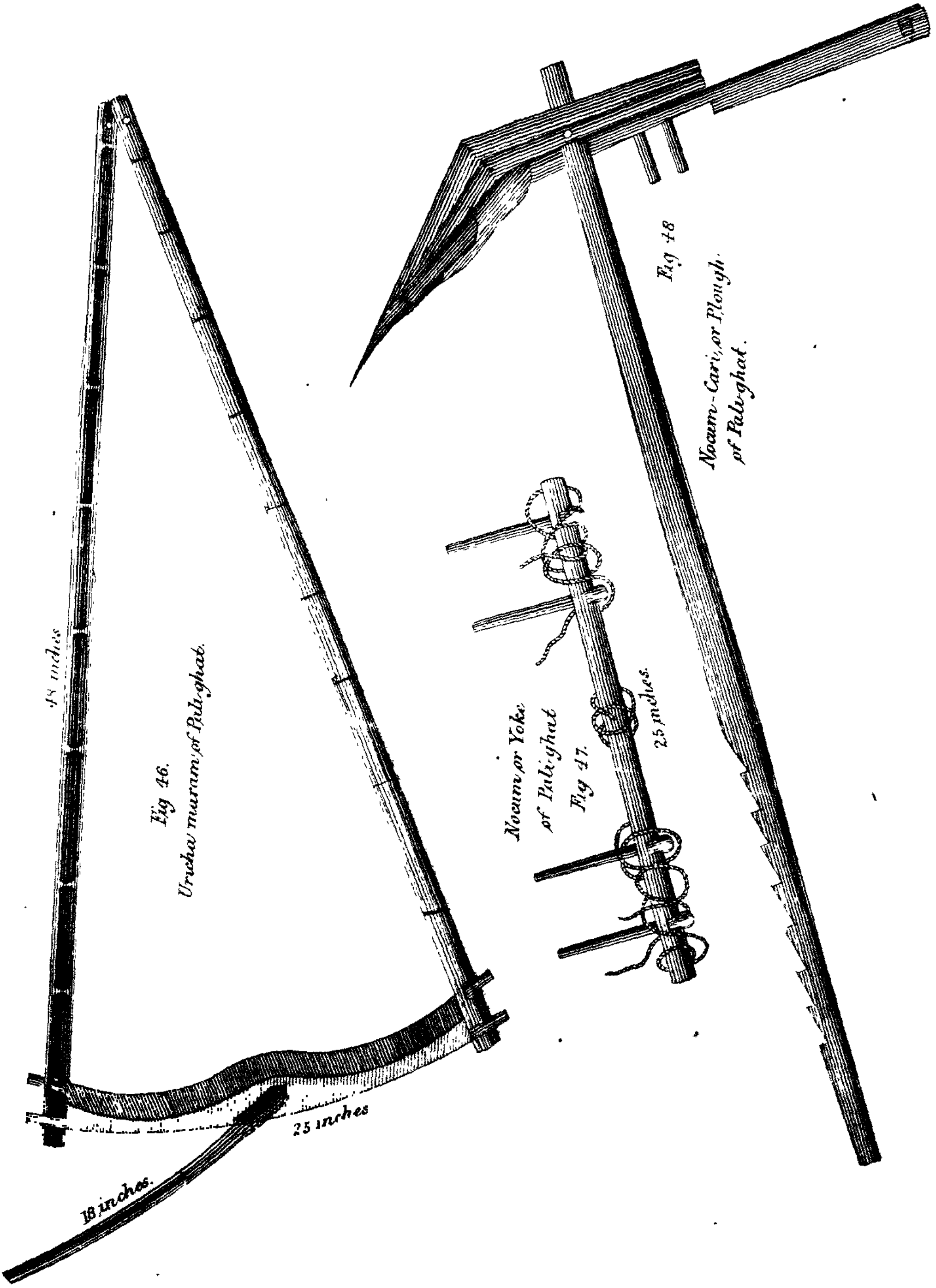
Cultivation of *Navara* rice, sown sprouted.

For *Navara* rice the field is ploughed ten times, between the 12th of May and the 12th of June, after the rain has reduced the soil to mud. The manure is given after the third ploughing. The field, having been ploughed, is smoothed with the *Uricha Maram* (Plate XIX. Fig. 46), which is drawn by two oxen, yoked as usual by the yoke, or *Nocum* (Plate XIX. Fig. 47). To drain off the water, two forrows are then drawn, with the usual plough of the country (Plate XIX. Fig. 48.) When drained, the field is smoothed by the women, who draw over it a small square stick called *Pati*. After this the seed is sown broad-cast, having been previously prepared so as to sprout. This prepared seed is here called *Molavittu*. The field, after having been sown, is for fifteen days kept free of water. The female slaves then weed it, and with the hand separate the young plants to equal distances. This operation takes up four or five days, after which the field inundated, until ripe, which happens in three months after it has been sown. The corn is cut about nine inches from the ground. The grain is separated from the straw by beating handfuls on the ground, or against a stone. That which is wanted for seed must be beaten immediately after being cut, and dried in the sun seven days. That intended for consumption must be all beaten in the course of three days, and requires only four days sun to be sufficiently dry. The straw is afterwards dried in the sun four or five days, and then trodden by the feet of oxen, or beaten with a stick, to separate the rice that, from having been less ripe, did not fall at the first beating. This second quality of rice is kept for the use of the slaves, and is considered as adequate to their maintenance. The grain in the husk is kept in large *Bamboo* baskets, from six to nine feet high, and from three to five feet in diameter. These baskets, called *Vallovutti*, are coated on the outside with a mixture of cow-dung and clay, and are covered with lids of the same materials. They are kept on planks, which are raised from the floor of the house upon stones. Rough rice is also preserved in larger baskets, called *Vullam*, which contain from two to four hundred *Porays*, or from 65 to 130 bushels, and are placed under sheds built for the purpose. In either of these rough rice will keep well for three years. All kinds of this grain keep equally well, and the harvest of all the kinds is managed in the same manner. This crop is apt to fail from drought, but excessive rain does it no injury.

Manner of preserving the grain.

Cultivation of *Mundu-pallay*, sown broad-cast

The rice called *Mundu-pallay* may be either cultivated, like the *Navara*, after the sprouted-seed manner; or the dry-seed may be sown broad-cast; or it may be transplanted. The only difference between it and the *Navara*, when cultivated after the sprouted-seed manner, is, that it requires four months to ripen. In this country, when the dry-seed is sown broad-cast, the cultivation is called *Pudiaki*. When this is to be performed, the ground is ploughed two


48 inches
Fig 46.
Urchu muram, of Palighat.
25 inches
18 inches.
Nocum, or Yoke
of Pali-ghat
Fig 47.
25 inches.
Fig 48
Nocum-Cari, or Plough
of Palighat.

or three times, immediately after the preceding crop has been reaped. Then, at any time in the course of six or seven months, it is manured. Between the 12th of March and the 10th of April, after a shower, it is ploughed again ten times. After a heavy rain, in either of the two following months, the seed is sown broad-cast, and covered with the plough. On the third day the field is ploughed across. At each ploughing the clods must be carefully broken with a stick, and smoothed with a hoe called *Caicotu* (Plate XXI. Fig. 55.) At the end of the month the weeds are removed, and the field is afterwards inundated. This is reckoned the least troublesome manner of cultivation. The seed requires to be sown a little thicker than in the sprouted-seed cultivation, and the produce is nearly the same. 1800. Dec. 1–4.

The following is the manner of cultivating the transplanted *Mundu-pallay*, which method of cultivation is here called *Naduga.* The *Maytam*, or ground kept for raising seedlings, is chosen in a high situation and poor soil. It pays neither rent nor land tax. In the course of the preceding year it is ploughed three or four times. Some then give it dung, others do not. After rain, between the 11th of April and the 11th of June, it is ploughed again five or six times, no water being kept on it. The clods are then broken with a stick, and cleaned by a rake drawn by oxen, and called *Varundy Maram* (Plate XX. Fig. 49), which is drawn twice over the field in different directions, and serves as a harrow. On one *Poray-candum*, three *Porays* of seed are sown, and covered by two harrowings with the rake drawn by oxen. On the third day the field has a slight ploughing, the plough-share being purposely drawn up, so as not to project beyond the timber part. The water is never allowed to inundate the seedlings until they are fit for transplanting, which they are in from 25 to 30 days. When the seed has been sown, the field into which it is to be transplanted begins to be cultivated. It is ploughed two or three times, then dunged, and afterwards ploughed again five or six times. It is always inundated, except when any operation is going to be performed, and then the water is let off. After the ploughings the clods are broken with the implement called *Chavita Maram* (Plate XX. Fig. 50), which is drawn by two oxen, while the driver stands on it, to increase the weight. The field is then ploughed again twice, and smoothed with the implement called *Uricha Maram.* The seedlings are watered for a day to loosen the roots; then they are pulled, and for three days small bundles of them are placed in the mud, with the roots uppermost. On the fourth and fifth days they are planted. The seedlings raised on one *Poray-candum* serve to plant four fields of that extent. Fifteen days after planting the field is inundated. This is the most troublesome manner of cultivating rice. Cultivation of *Mundu-Pallay* when transplanted.

The lower parts of the rice-land (*Dhanmurry*) are called *Ubayum*, and a great number of these produce annually two crops. *Ubayum* land.

The kinds of rice cultivated in the first crop are *Sambau, Shor-* First crop.

1800. Dec 1—4.

nali, *Callma*, and *Carpadi*. The first crop is cultivated in all the three manners, in about the following proportion: $\frac{65}{100}$ as dry-seed, $\frac{25}{100}$ as transplanted, and $\frac{10}{100}$ as sprouted-seed.

The cultivation is the same with that which is used for the rices called *Navara*, and *Mundu-pallay*; only the soil, being stiffer, requires two more ploughings, and the seasons at which the operations are performed are somewhat different. The time for sowing the dry-seed is the same, and so is the harvest of the *Carpadi* rice; but the *Sambau* is one month, the *Shornali* one month and a half, and the *Callma* two months later in coming to maturity. The quantity of seed sown on the same extent of ground is nearly equal; but the produce is more considerable, especially that of the *Callma*. In the transplanted cultivation the seed is sown toward the 11th of May, and the transplantation must be performed between the 11th and the 26th of June. The quantity of seed is the same as that of *Mundu-pallay*; the produce is rather more, especially that of the *Callma*. These kinds of rice, cultivated as sprouted-seed, produce very poor crops.

Second crop.

The kinds of rice cultivated in the second crop are, *Maliga* or *Shiriga Sambau*, *Shittany*, *Bally Shittany*, and *Nonan*. It is almost entirely transplanted: for these kinds of rice, none but a few poor creatures use the sprouted-seed cultivation. The *Maytan*, or seedling bed, receives less seed at this season than for the first crop, especially of the *Maliga Sambau*. It may be sown at any time from the 28th of July until the 28th of August. The seedlings may be transplanted at any time between the 14th of August and the 13th of November. Before the *Maliga Sambau*, the first crop is often omitted, and then it is sown early, and its produce is considerable. The crop of the other kinds is small, and very precarious. It depends upon rain coming from the eastward in December, which it sometimes fails to do.

Rice requiring long to ripen. *Ariviray*.

In this country there is another set of rices, that require eight or nine months to ripen. The only one of these that is cultivated in this immediate neighbourhood is that called *Ariviray*. It is sown on land lower than the *Palealil*, but not so low as that which gives two crops. It is cultivated in the same manner as the *Mundu-pallay*, both as dry-seed, and as a transplanted crop. The former is sown about the 11th of April, and the crop is rather a scanty one. The seedlings, in the transplanted crop, are moved between the 12th of June and the 13th of July, and are planted very thin.

Cutaden.

In some parts of the country there is a kind of rice called *Cutaden*, which requires a year to ripen, and grows in places where the water remains long, and is very deep. The persons from whom I have my information are not acquainted with the manner in which it is cultivated.

Parumba, or high lands.

In the arable parts of the high or *Parum* lands, which pay no land tax, the following articles are cultivated:

Produce.

Modum, *Morun*, or hill-rice.

Ellu, or *Sesamum*, by the English in India called *Gingely*. 1800. Dec. 1—4.
Ulindu, *Phaseolus minimoo*, Roxb. MSS.
Carun Pyro, *Dolichos Catsjang semine nigro.*
Shayro Pyro, *Phaseolus mungo.*
Shamay, *Panicum miliare*, E. M.

This kind of land is in general cultivated once in two years only, and requires a year's fallow to recover its strength; but in places near villages, where it receives manure, or is much frequented by men and cattle, it gives a crop every year. Whatever crop is to be taken, the long grass and bushes growing on this ground are always cut down by the roots, and burned, before the first ploughing, for the ashes serve as a necessary manure. Manure.

For *Modun* rice the ground is ploughed two or three times between the 14th of November and the 12th of December. Between the 12th of March and the 10th of April, with the early rains, the field is manured with dung and ashes, and is ploughed again two or three times. Between the 12th of June and the 13th of July the seed, without preparation, is sown broad-cast, and covered with the plough, after which the clods are broken with a large stick. On the third day the field is ploughed across, and the clods are broken again, and made smooth with the hoe called *Padana Caicotu* (Plate XXI. Fig. 56.) At the end of a month the weeds are removed by the hand. If the rain does not come plentifully between the 14th of August and the 13th of September, the whole crop is lost; but when the season is favourable, this crop is as good as is usual in the low or *Paddum* lands. For all the grains cultivated on this kind of land, the *Patom*, or neat rent, is one-fifth of the gross produce. *Modun* rice.

The most considerable crop here on *Parum* land is *Sesamum*, of which there are two kinds, the *Shiray* and *Peri Ellus*. These are always sown separately; but they are cultivated at the same season, in the same manner, and in the same kind of soil. Between the 14th of July and the 13th of August, the small bushes, growing on the fields are cut, dried for two days, and then burned. The field is then ploughed seven times. Between the 14th of August and the 13th of September, after seven days fair weather, the seed is sown, and covered with the plough. Twenty days afterwards, that is, about four weeks after the rains from the westward have ceased, the rains from the eastward ought to commence. If these come, there will be a good crop, which is ripe between the 13th of December and the 11th of January. The *Shiray* ripens ten days earlier than the *Peri*. Too much rain, when the plants are in flower, is very apt to injure the crop. *Sesamum*.

All the pulses called *Ulindu*, *Carum Pyro*, and *Shayro Pyro*, are cultivated in the same manner. The field is ploughed once between the 12th of January and the 9th of February; the seed is sown immediately afterwards, and covered with a cross ploughing. Between the 14th of September and the 14th of October these pulses ripen without farther trouble. Pulse.

1800. Dec. 1—4. *Shamay.*

For *Shamay* the field is ploughed five times between the 11th of April and the 11th of May. After a shower of rain, it is harrowed with the rake drawn by oxen; then sown; and the seed is covered by another harrowing. It is ripe between the 14th of July and the 13th of August.

Rotation.

In such part of the high lands as is manured sufficiently to enable it to produce annually a crop of grain, a rotation has been introduced; 1st year *Shamay*, 2d year *Ulindu*, 3d year either of the *Pyros*. Another rotation is alternate crops of *Sesamum* and *Shamay*. The pulses and *Sesamum* can never be sown in the same field.

The want of rent injurious to cultivation.

The cultivation of the arable part of the high lands is that which is by far the most neglected in this part of the country, yet no land-tax has been imposed on it; which in my opinion clearly shows, that the clamours raised against that tax, as injurious to cultivation, are groundless.

Manure.

Ashes and cow-dung are carefully collected for manure; and the latter is preferred when dry and rotten. The quantity is therefore very small, as nothing is mixed with the dung, to rot, and increase its bulk. The leaves of every kind of bush and tree that is not prickly are, however, used as a manure for rice-land.

Cattle of the cow kind.

The native oxen of this country are of the same form or breed with those in *Coimbetore* and *Mysore;* but they are much smaller, and are indeed the most diminutive cattle that I have ever seen. A few good ones are imported from *Coimbetore*, generally when very young. Mr. Warden thinks the native cattle very inadequate to cultivate the land properly; and states, that upon inquiry he has been informed, that the produce of a field ploughed with large oxen is nearly double of that which has been tilled with the common oxen of *Malabar*.

In small huts contiguous to their houses the *Puttar Bráhmans* commonly keep four or five cows, and the farmers have generally one or two. When a man's stock of cows is larger, they are kept, with the labouring cattle, in a house built at some distance from the abode of free men, in the place where the slaves are permitted to dwell when the crop is not on the ground; for these poor creatures are considered as too impure to be permitted to approach the house of their *Devaru*, or lord. The cow, in her fourth or fifth year, has her first calf, and generally breeds five or six times. She gives milk about fourteen months, and is then dry about ten months before she has another calf; so that she lives about sixteen years. For the first fifteen days, the calf is allowed to suck the whole milk; for the first ten months it gets a share, but none afterwards. A good cow, fed by a *Bráhman*, besides what the calf gets, gives daily 1½ *Puddy* of milk, or about 80 cubical inches: but, if fed by a farmer, owing to his comparative poverty, she will give only one *Puddy*. The cows feed all day on the pasture, and at night have cut grass, or straw; but the *Bráhmans* give them oil-cake also during the time they are in milk.

The women of the *Bráhmans*, when they are afraid of not having children, carry a bull-calf to the temple of *Siva*, and dedicate it to that god, in hopes that he will avert, what they consider as a great evil. The bulls so dedicated are ever afterwards considered as sacred, are allowed to roam about wherever they please, and are in general very well fed, almost every one that has any grain to spare giving them some as they pass. These are properly the town-bulls; but their duties are often performed by the young cattle intended for labour, which are not emasculated until they are between four and five years of age. This want of selection, in the males intended to keep up the breed, seems one great cause of the degeneracy of the cattle. 1800. Dec. 1–4. Neglect of the breed.

The oxen are never wrought until after they have been emasculated, and they continue capable of labour for five or six years. Rich men feed their labouring cattle four months on grass, and eight months on straw. Poor people can only allow straw for one half of the year. Every man who occupies rice-land (*Dhanmurry*) has a certain part of the high land attached to it for pasture; and to this he has an exclusive right, without paying rent: but any man may cut grass wherever he pleases. Management of the cattle.

The buffaloes also of this country are of a very poor breed. Both males, and females when not giving milk, are put into the yoke, and, like the ox, are wrought from about six to nine in the morning, and from two to six in the evening. In the sowing season they are wrought an hour longer. In the same space of time the ox performs somewhat more labour than the buffalo; but the buffalo, having more strength, is capable of turning up stiffer soils than the ox can do. The male buffaloes, intended for labour, are emasculated when they are between five and six years of age. The two kinds of cattle are fed much in the same manner. The quantity of milk given by the female buffalo here does not exceed that given by the cow, and it is reckoned of an inferior quality: both are, however, generally mixed for making butter, which among the natives of *Malabar* is very bad and nasty. Buffalo.

Last year, for five months, the *distemper* prevailed among both kinds of cattle, but was most severe upon the buffaloes. It is said to have carried off about one half of the whole stock, but the loss is perhaps greatly exaggerated. Distemper among the cattle.

According to Mr. Warden's returns, the number of cattle of the ox kind in his districts amounts to 39,575, and of the buffalo kind to 11,762, in all 51,337. The number of ploughs which these work amounts to 14,433. It must be observed, that the farmers estimated a plough to be capable of cultivating 40 *Porays* of low (*Paddum*) land, probably including the small portion of arable high (*Parumba*) land which falls to each man's share, in proportion nearly to the extent of the low lands that he occupies, and which, requiring little comparative labour, would add about 2 *Porays* to each plough. Now on this supposition, which cannot be very erroneous, the Stock of cattle. Estimate of the proportion of land giving two crops.

1800. Dec. 1—4.

number of ploughs in the district could only cultivate 577,320 *Porays* of low land (*Dhanmurry*). Mr. Warden's estimate makes the *Porays* actually cultivated 758,460. This I have corrected, by allowing one-fourth of the low land called *Ubayum* to be cultivated twice a year, to 613,205 *Porays*; but it is probable, that I have under-rated the extent of land producing two crops: the difference, however, on the data given is very small; in place of $\frac{2500}{10000}$ of the *Ubayum* land being cultivated twice, as I supposed by the statement given of the number of ploughs, we ought to allow $\frac{2665}{10000}$.

Few domestic animals among the natives.

No horses, asses, swine, sheep, nor goats, are bred in *Malayala*, or at least the number is perfectly inconsiderable. All those required for the use of the inhabitants are imported from the eastward. The original natives had no poultry; but since Europeans have settled among them, the common fowl or pullet may be had in abundance. Geese, ducks and turkeys, are confined to the sea coast, where they are reared by the Portuguese.

Forests.

The part of Mr. Warden's districts occupied by thick forests, and almost uninhabited, is very extensive. The forest which is a continuation of the *Ani-malaya* woods, and which lies between the frontier and *Colangodu*, is about seven miles long, and nearly the same in breadth. To the eastward of *Pali-ghat* there is another extensive forest, and there is a long narrow space in the south-east corner of the district. The hills toward the south are covered with trees to the summit; while those toward the north, like all the other *Ghats* extending from thence to the east, are naked on the prominent parts, and only covered with trees in their recesses or glens.

***Puddies*, or villages of the rude tribe called *Malasir*.**

The forests here are divided into *Puddies*, each of which has its boundary ascertained, and contains one or more families of a rude .e, called *Malasir*. Both the *Puddy* and its inhabitants are con- ed as the property of some landlord, who farms out the labour .nese poor people, with all that they collect, to some trader (*Chitty*, *Manadi*), who treats the *Malasirs* much in the same manner as the *Malypuddy* of *Ani-malaya* does the rude tribes under his authority, and receives from them nearly the same articles. In fact, this is a most iniquitous mode of taxing the *Malasir*, and the produce of it is a mere trifle. The most productive *Puddy* in the whole district pays only four *Rupees* a year. A capitation tax on the *Malasir* might raise a greater income to the proprietors of the woods, and be much less oppressive.

Customs of the *Malasir*.

Having sent for some of these poor *Malasirs*, they informed me, that they live in small villages of five or six huts, situated in the skirts of the woods on the hills of *Daraporam*, *Ani-malaya*, and *Pali-ghat*. They speak a mixture of the *Tamul* and *Malayala* languages. They are a better looking people than the slaves; but are ill clothed, nasty, and apparently ill fed. They collect drugs for the trader, to whom they are let; and receive from him a subsistence, when they can procure for him anything of value. He has the exclusive right of

purchasing all that they have for sale, and of supplying them with 1800.
salt, and other necessaries. A great part of their food consists of Dec. 1—4.
wild *Yams* (*Dioscoreas*). which they dig when they have nothing to give to the trader for rice. They cultivate some small spots in the woods after the *Cotu-cadu* fashion, both on their own account and on that of the neighbouring farmers, who receive the produce, and give the *Malasirs* hire. The articles cultivated in this manner are *Rali* (*Cynosurus corocanus*), *Avaray* (*Dolichos Lablab*), and *Tonda* (*Ricinus palma christi*). They are also hired to cut timber and firewood. In this province they pay nothing to the government. They always marry girls of their own village, and never take a second wife unless the first dies. Marriage is indissoluble, except in case of infidelity on the part of the woman. When such a thing happens, the people of the village assemble; the woman is well flogged, and returned to her parents. The husband never receives her back; but any other person, that is inclined, may marry her. A widow may marry again; but a girl who has arrived at the age of puberty as a virgin is considered impure, and no person will take her for a wife. When a man wishes to marry his son to any girl of the village, he speaks to her parents, generally while both the parties are very young; the father of the girl must give her to the first suitor; and should the boy die, before the ceremony is performed, the poor girl cannot get a husband. The boy's father, when the proper time is arrived, gives a dinner to all the relations, with two *Fanams* to the bride's mother, two *Fanams* to the girl for a new dress, and one *Fanam's* worth of spirituous liquors for the guests. The girl is delivered over to the boy, and the marriage is considered as valid. The elder sons of a family, as they grow up and marry, build separate huts for themselves. The parents continue to live with the youngest son; but his elder brothers contribute to their parents' support when they are no longer able to work. The *Malasir* burn the dead, and seem to have no knowledge of a future state. The god of their tribe is called *Mallung*, who is represented by a stone that is encircled by a wall, which serves for a temple. Once a year, in April, a sacrifice of goats, and offerings of rice, honey, and the like, are made by the *Malasir* to this rude idol. If this be neglected, the god sends elephants and tigers to destroy both them and their houses. There is no priest for this god, nor do the *Malasir* acknowledge any *Guru*, or a dependance on the *Bráhmans*. The wax that these poor people Wax.
might collect in a year Mr. Warden estimates at 600 *Tolams*, or about $24\frac{1}{4}$ hundred-weight.

The most valuable production of these forests, however, is their Timber.
timber, of which there are several good kinds; but the *Teak* is by far the most valuable. To the increase or preservation of this, little or no attention has been paid; but about two years ago an order was issued by the commissioners, prohibiting any trees from being cut that were under certain dimensions; and trees of the regulated girth are said by Mr. Warden to be too heavy for the native carriage.

1800. Dec. 1—4.

These forests possess a great advantage, in being intersected by many branches of the *Panyán*: river, which in the rainy season are large enough to float the timber down to the sea. All the hills near this river seem naturally fit for producing the *Teak*; and with a little pains, in the course of time, very valuable forests of that excellent tree might be reared. All that would be required would be to cut down every other kind of timber, allowing the *Teak* to spring up naturally, which it will every where do; and to enforce the commissioners' regulation concerning the size of the trees. In the course of fifty or sixty years, very excellent forests might thus be formed near water carriage, very much to the advantage of their proprietors and of the nation; but these people are so ignorant, that, without compulsion, it could not be expected that any such plans should be carried into effect. At present, every man who chooses to give the landlord a *Fanam* may cut down a tree, and all the valuable trees being cut, while the useless ones are allowed to remain and come to seed, the consequence is, that in all places of easy access the valuable kinds have become almost entirely extinct. Mr. Warden thinks, that at present between four and five thousand *Candies* of *Teak*, fit for ship-building, might be annually procured from the forests in his districts; but that could only be done by a large body of trained elephants, an expense beyond the reach of individuals, and only to be undertaken by the Company. The *Candy* of *Teak* timber, when seasoned, measures $10\frac{3}{4}$ cubical feet.

Elephants.

The elephants are a dreadful nuisance to the farmers who live near these forests, and have prevented much land, formerly deserted, from being again cultivated. A regular hunting of them, carried on from *Ani-malaya* to *Priya-pattana*, would be a great relief, and might be done to advantage, if the Company could afford to purchase the elephants.

Iron ore.

Near *Colangodu* four forges are supplied with iron ore. The ore is the usual black sand, and is found mixed with clay in *strata* near the river.

Granite.

An immense rock near the temple of *Bhagawat* consists of a good grey granite, very fit for building; and indeed the temple is constructed of this stone. The structure of this granite is evidently lamellar, the plates being vertical, and running east and west, as they do in *Coimbetore:* in some places the plates have a sort of circular disposition round a centre, somewhat like the layers round a knot in wood; in others they are undulating, and have a resemblance to the waving figures on marbled paper. Each of the plates containing different proportions of the felspar, quartz, and mica, they are more distinguishable by their colour, than by its being practicable to separate them. The rock here contains fewer veins of quartz than any granite that I have hitherto seen in the peninsula. Although the plates are vertical, the rock is divided by parallel horizontal fissures that have a smooth surface, and which is frequently the case with aggregate rocks in all the south of India. This greatly facilitates the cutting

of stones for building; as wedges readily cut off large masses, by being driven in at right angles to the fissures. 1800. Dec. 1—4.

5th *December*.—I set out, in company with Mr. Waddel, lately superintendant of the southern division of *Malabar*, whose activity as a magistrate, while his offices lasted, had procured him many enemies among the ruffians who have long infested this part of the country. Mr. Warden was so good as to accompany us to our stage at *Lacaday cotay*. On our route we were joined by armed *Nairs*, who said they had come from all quarters to protect us from the ruffians, who are mostly *Moplays*. We saw nothing, however, to cause alarm. We first crossed the river which passes the south side of the fort, and is a fine clear stream. We afterwards crossed the same, after it had united with the northern river, forming one of the clearest and most beautiful streams that I have ever seen. The ford is at *Mangada*, called by Major Rennell *Mangery cottay*. The fort that was there has gone entirely to ruins, and there is no market at the place. The country is very beautiful; a mixture of little hills, swelling grounds, and rice fields, which seem to bear but a small proportion to the high lands. These are in a very bad state of culture. *Sesamum* is the most common crop, and it looks very well. *Lacaday* is in the territory formerly belonging to the *Tamuri Rájá*. The remains of the fort are now scarcely discernible. There is at this place a small market, chiefly inhabited by *Tamuls*; for the original natives of *Malayala* seem rarely, if ever, to have kept shops. Dec. 5. State of the country.

6th *December*.—In the morning Mr. Waddel and I went about ten miles toward the south, as it was dangerous for him to go by the direct road. We passed through a beautiful country, consisting of low hills intersected by narrow fertile vallies; the whole, like that which we saw yesterday, finely wooded and well peopled. The high grounds in a few places are rocky, but their soil is in general good. Their cultivation is exceedingly neglected. We first crossed the same river that we did yesterday at *Mangada*, and then a branch of the same coming from the south-east. Both of them are fine streams. At the first river we entered the dominions of the *Cochi Raja*, and found the chief men of the country, called *Nambirs*, waiting for us with a numerous band of *Nairs*, who were commanded by an officer in a uniform resembling the Dutch. Every possible attention was shown not only to ourselves, but also to supply the wants of our followers; and we were escorted by the officer's party to *Paryunuru*, where we encamped. Dec 6. Face of the country. *Cochi Rájá.*

The *Cochi Raja* pays an annual tribute to the Company, as he did to *Hyder* and *Tippoo*; but he retains full jurisdiction, civil and military; and his country is so far better administered than that more fully under the authority of the Company, that neither *Moplays* nor *Nairs* presume to make any disturbance. It is said, that this prince's government is rather severe and cruel; but with a people so exceedingly turbulent, a vigorous government at least is necessary.

1800.
Dec 6.
Turbulence of the natives.

Both *Nairs* and inland *Moplays* pretend to be soldiers by birth, and disdain all industry. Their chief delight is in parading up and down fully armed. Each man has a firelock, and at least one sword; but all those who wish to be thought men of extraordinary courage carry two sabres. As every man walks about with his sword drawn, assassinations are very frequent; which indeed cannot be avoided among a barbarous people with weapons always ready:

Αυτος γαρ εφελκεται ανδρα σιδηρ .

It is said also, that the *Rájá* wrings much money from his people; but I see no appearance of their being reduced to poverty, either in their houses or persons.

Paryunuru is a large *Désam* without any market. It has a small temple, and a *Colgum*, or house belonging to the *Râja*.

Dec. 7.
Face of the country.

7th *December*.—We went a short stage to *Shelacary*. The road leads through a most beautiful country. The rice grounds are narrow valleys, but are extremely well watered by small perennial streams, that enable them annually to produce two crops. Very little of the high ground is cultivated. I observed, however, some fields, that contained the *Cytisus Cajan*, more luxuriant than I ever before saw. The houses of the natives are buried in the groves of palms, *mangoes*, *jacks*, and plantains, that skirt the bottoms of the little hills. Above these are woods of forest trees, which, though not quite so stately as those of *Chittágong*, are still very fine, and are pleasant to walk in, being free from *Rattans* and other climbers. The *Teak*, and *Viti*, or black-wood, abound in these woods; but all the large trees have been cut; and no care is used to encourage their growth, or to check that of useless timber.

Nairs of the *Cochi Raja*.

We were escorted by many of the *Raja's Nairs*, and were met by one of his officers of cavalry, well dressed in a blue uniform with white facings, and attended by two orderlies in a similar dress. They wore boots and helmets, and the officer had a gorget; the whole exactly after the European fashion. He informed us, that the *Raja* had been very desirous of meeting us; but that at present he was so unwell, that he could not stand without support.

Roads.

This information, I believe, was merely complimentary. The *Raja* has made tolerable roads through the hilly parts of the country all the way we have come, and for our accommodation they had been repaired; but we were always much obstructed when we came to a valley, as the roads have not been continued through the rice fields. In fact, the road has been made from ostentation alone, and not from any rational view of facilitating commerce or social intercourse.

Shelacary.

There are no shops at *Shelacary*, but people were sent by the *Raja* to supply our wants. Indeed, nothing can be more polite or attentive than the whole of his conduct.

Colgum, or palace of a *Raja* of *Malayala*.

Near our tents was a *Colgum*, or house belonging to the *Raja*. It is a large square building, composed partly of stone, and partly of mud. The greater part of it is only one story in height; but in some places there is an upper floor. It is roofed with tiles, and

totally destitute of elegance or neatness, but is looked upon by the natives as a prodigy. Like the other houses of the country, it is surrounded by a grove of fruit trees. Some *Sepoys* were here on duty, the mud walls surrounding the house being considered as a fort. 1800. Dec. 7.

8th *December*.—We went a long stage to *Nellaway*, through a country similar to that which we passed yesterday; but the hills are higher, and much of the road is very bad. From the people of the *Raja* we continue to receive every possible attention. *Nellaway* has a small temple, but no shops. Dec. 8. Face of the country. Nellaway.

9th *December*.—In the morning we went a short stage to *Cacadu*, through a country differing from that seen on the two preceding days, by its hills being much lower, and covered with grass in place of forest trees. Although the soil of these hills appears to be good, yet scarcely any part of them is cultivated; but the pasture seems to be tolerable, the cattle, though remarkably small, being in good condition. The country is very beautiful: its round hills covered with grass are separated by fine verdant fields of corn, skirted by the houses of the inhabitants, which are shaded by groves of fruit trees. Dec. 9. Cacadu.

Opposite to our encampment was a *Nazaren*, or Christian village, named *Cunnung colung curry Angady*, which looks very well, being seated on a rising ground amid fine groves of the *Betel-nut* palm. The *Papa* or priest waited on us. He was attended by a pupil, who behaved to his superior with the utmost deference. The *Papa* was very well dressed in a blue robe; and, though his ancestors have been settled in the country for many generations, he was very fair, with high Jewish features. The greater part of the sect, however, entirely resemble the aborigines of the country, from whom indeed they are descended. Nazarens, or Malabar Christians.

The *Papa* informed me, that his sect are dependent on the Jacobite patriarch of *Antioch*; but that they have a metropolitan, who resides in the dominions of *Travancore*, and who is sent by the patriarch on the death of his predecessor. None of the *Papas*, or inferior clergy, go to *Antioch* for their education, and all of them have been born in the country. My visitor understood no languages but the *Syriac*, and that of *Malayala*. He preaches in the latter; but all the ceremonies of the church are performed in the *Syriac*. In their churches they have neither images nor pictures, but the *Nazarens* worship the cross. Their clergy are allowed to marry; my visitor, however, seemed to be not a little proud of his observing celibacy, and a total abstinence from animal food. He said, that, so far as he remembers, the number of the sect seems neither to be increasing nor diminishing. Converts, however, are occasionally made of both *Nairs* and *Shanars*; but no instance occurs of a *Moplay* having been converted, nor of a *Namburi*, unless he had previously lost caste.

The *Papa* says, that the *Nazarens* were introduced 1740 years ago, by a certain saint named *Thomas*, who, landing at *Meila-pura*,

1800. Dec. 9.

took up his residence on a hill near *Madras*, and which is now called after his name. He afterwards made a voyage to *Cochin*, and in that neighbourhood settled a church, which is now the metropolitan, as the Portuguese drove all the *Nazarens* from the eastern coast. St. Thomas afterwards returned to *Meila-pura*, where he died. At that time *Malayala* belonged to the *Bráhmans*, who were governed by a *Raja* sent by *Sholun Permal*, the sovereign king of the south. The *Papa* then related the history of *Cheruman Permal* nearly as I have given it (Vol. II. p. 51) on the authority of the *Namburis*; only he says, that this traitor, after having divided his usurped dominions, died before he reached Mecca. It was in his reign that the Mussulmans first arrived in India. They landed at *Challiem*, a place near *Vaypura*. The *Papa* says, that the metropolitan has an account of all his predecessors, from the time of Saint Thomas, with a history of the various persecutions that they have been subjected to by the governing powers, the worst of which would appear to have been that inflicted by the Portuguese. He promised to send me a copy of this kind of chronicle, but has not been so good as his word.

A *Bráhman* of the place says, that when any slaves are converted by the *Nazarens*, these people bestow on them their liberty, and give them daily or monthly wages. He said also, that the *Nazarens* are a very orderly, industrious people, who live chiefly by trade and agriculture.

In the afternoon we went to the *Nazareny* village, which contains many houses regularly disposed, and full of people. For an Indian town it is well built, and comparatively clean. It has a new church of considerable size. An old church is situated at some distance on a beautiful rising ground. It is now unroofed; but the walls, although built of indurated clay only, continue very fresh and strong. The altar is arched over with the same materials, and possesses some degree of elegance. The burying ground is at the west end of the church, where the principal door is placed. From its being very small, the graves must be opened long before the bones are consumed As the graves are opened for new bodies, the old bones are collected, and thrown into an open pit near the corner of the church, where they are exposed to the view of all passengers.

Chitwa, or Shetuwai, on the island of Mana-puram.

From thence we went to *Chowgaut*, where we embarked in a canoe, and went to the house of Mr. Drummond, the collector, who resided then at the place called by us *Chitwa*, but by the natives *Shetuwai*.

Dec. 10, 11.

10th and 11th *December*.—I remained with Mr. Drummond at *Chitwa*. This place is situated in an island, which is twenty-seven miles long, and in some places five miles wide, and which by Europeans is commonly called the island of *Chitwa*; but its proper name is *Mana-puram*. It consists of two districts, *Shetuwai*, and *Atty-puram*; and is separated from the continent by beautiful inlets of

salt water, that form the northern part of one of the finest inland navigations imaginable. The soil of the island is in general poor; and, although the whole may be considered as a plain, the rice fields are very small in proportion to the *Parum* or elevated land, which rises a few feet only above the level of the sea. Water may every where be procured by digging to a little depth; there can be no doubt, therefore, but that with proper industry the whole might be made productive. The shores of the island are covered with coco-nut palms, from which the revenue is chiefly derived. The whole is rented by the *Cochi Rájá* of the Company, at 30,000 *Rupees* a year. He possesses no legal jurisdiction over the inhabitants; but daily complaints are preferred against him to the collector, to whom he is accused of great cruelty. 1800. Dec 10, 11. Inland navigation.

I here had a conversation with one of the *Carigars*, or ministers of the *Tamuri Rájá*, the person who manages the affairs of that chief. He says, that all the males of the family of *Tamuri* are called *Tamburans*, and all the ladies are called *Tamburettis*: all the children of every *Tamburetti* are entitled to these appellations; and, according to seniority, rise to the highest dignities which belong to the family. These ladies are generally impregnated by *Namburis*; although, if they choose, they may employ the higher ranks of *Nairs*; but the sacred character of the *Namburis* almost always procures them a preference. The ladies live in the houses of their brothers; for any amorous intercourse between them and their husbands would be reckoned scandalous. The eldest man of the family is the *Tamuri Rájá*, called by Europeans the *Zamorin*. He is also called *Mana Vicrama Samudri Rája*, and is crowned. The second male of the family is called *Eralpata*, the third *Munalpatta*, the fourth *Edatara Patana Rájá*, the fifth *Nirirupu Muta Eraleradi Tirumulpata Rájá*, and the sixth *Elleradi Tirumulpata Rájá*. The younger *Tamburans* are not distinguished by any particular title. If the eldest *Tamburetti* happen to be older than the *Tamuri*, she is considered as of higher rank. The *Tamuri* pretends to be of a higher rank than the *Bráhmans*, and to be inferior only to the invisible gods; a pretension that was acknowledged by his subjects, but which is held as absurd and abominable by the *Bráhmans*, by whom he is only treated as a *Sudra*. Of the *Tamuri Raja*, or *Zamorin*

During the government of the *Tamuris*, the business of the state was conducted, under his authority, by four *Savadi Carigars*, whose offices were hereditary, and by certain inferior *Carigars*, appointed and removed at the pleasure of the sovereign. The *Savadi Carigars* are, 1st, *Mangutachan*, a *Nair* of the tribe called *Sudra*; 2d, *Tenancheri Elliadi*, a *Bráhman*; 3d, *Bermamuta Panycary*, also a *Sudra Nair*; and 4th, *Puranambi*, a *Nair* of the kind called *Nambichan*. The inferior *Carigars* managed the private estates, or *Chericul* lands, of the *Tamuri*, and collected the revenues. These consisted of the customs, of a fifth part of all the moveable estates of every person that died, and of fines: of course, the *Carigars* were the Government.

1800. Dec. 10, 11.

administrators of justice, or rather of what was called law. They were always assisted by four assessors; but, the selection of these being left to themselves, this provision gave little security to the subject. Eight tenths of all fines went to the *Tamuri*, and two tenths to the judge. For capital punishments, the mandate of the *Tamuri* was required. The defence of the country rested entirely on such of the *Nairs* as received arms from the *Tamuri*. These were under the orders of *Nadawais*, who commanded from 200 to 3000 men, and who held their authority by hereditary descent. The *Carigar* says, that these *Nadawais* had lands given them, in proportion to the number of men that each commanded; but how that could be, when the whole lands belonged to *Namburi* landlords, I do not understand. The soldiers, when on actual service, received a certain small subsistence.

Tributaries.

In cases of emergency, certain tributary or dependent chiefs were also summoned to bring their men into the field. These chiefs, such as *Punetur*, *Talapuli*, *Manacollutil*, *Ayencutil*, *Tirumunachery*, and many others, acknowledged the *Tamuri* as their superior; but they assumed the title of *Rájá*, and in their respective territories possessed full jurisdiction. They were merely bound to assist the *Tamuri* with military service. He never bestowed on any of them the title of *Rájá*, either in writing or conversation, and treated with contempt their pretension to such a dignity. The principal *Colgum* of the *Tamuri* is near the fort at *Chowgaut*; but at present he is absent on business at *Calicut*.

Weights.

The *Tolam*, by which all weighable goods are here sold, contains 120 *Polams* each of ten *Pondichery Rupees*, or is nearly 30¼ lb.; but it differs in almost every circle.

Dry-measure.

The *Poray* grain measure is the same as at *Pali-ghat*, and is the same every where in Mr. Drummond's districts. By the merchants it is divided into ten *Edangallies*; but by the farmers it is divided into *Naras*, which differ in almost every *Desam*, and vary from five to ten in the *Poray*.

Land-measure.

The *Poray-candum*, or *Poray-land*, is said, by the people here, to be nearly the same in extent all over *Malayala*; but the quantity of seed sown on a *Poray-candum* differs according to the soil. The proper extent of a *Poray-candum* is said to be 32 *Varracolus* square. The *Varracolu* is equal to 28 inches and ⅝ English measure; and the *Poray candum* is therefore very nearly 5825 square feet. This I am inclined to think applicable to at least all the low rice land near the sea.

Mr. Drummond's answers to the statistical queries which I proposed to him through the commissioners, not having been received in my account of his district, I have no assistance, except from Mr. Smee's valuable communication.

Paddum, the only rice-land near the sea

The low land that lies near the sea is extremely sandy, and the quantity of rice-field is not very great. It is all of the kind called *Paddum*, no hill rice being cultivated except in the inland districts. A large proportion of it produces only one crop, and the second crop

is always very precarious. The average produce of the whole rice lands in this district, according to Mr. Smee, is five *Porays* from one sown, or from one *Poray-candum*, which according to the extent lately mentioned, will make the average produce a little more than 12½ bushels an acre. But Mr. Smee deducted ten per cent. for contingencies, in order not to distress the cultivator; so that the actual average produce is a little more than 13¾ bushels an acre. According to the account of the people, every *Poray-candum*, on an average, pays two *Porays* of (*Patom*) rent; and the farmer, besides, discharges the land-tax. As this amounts on each *Poray-candum* to 1¼ *Fanam*, which is worth at the cheap season $1\frac{625}{1000}$ *Porays* of rough-rice, it is evident that the *Poray-candum*, by which the tax is paid, must be quite different from an actual *Poray-candum*; for, deducting two *Porays* for seed and expense of cultivation, two *Porays* for rent, and $1\frac{625}{1000}$ for taxes, the *Poray-candum* should on an average produce $5\frac{625}{1000}$ *Porays*, besides what may be supposed necessary for the trouble of the farmer. On consulting these people, they explain this by saying, that it is only the best lands that are rated in the revenue accompts at their true extent, and that of the poor soils five *Poray-candums* are sometimes written as one. In middling soils two *Poray-candums* are rated in the revenue accompts as one, which reduces the medium *Negadi* to eight *Endangallies*, even when the rice is lowest. Thus the farmer deducting ten per cent. for contingencies, on an average, pays 4⅛ *Porays* for each *Poray-land*, and has ⅞ of a *Poray* for neat profit, after deducting seed and expense of labour. The profits of the landholder here are much greater, and those of the farmer much smaller, than at *Pali-ghat*.

1800. Dec. 10, 11. Produce rent, and taxes of rice-ground.

All the three methods of cultivating rice, which I call dry-seed, sprouted-seed, and transplantation, are here in use.

Manner of cultivating rice.

For dry-seed, the field immediately after the preceding crop has been cut between the 14th of November and the 12th of December, must be ploughed twice. Every month afterwards, for the five following times, and ploughings must be repeated twice, and at one of these times some ashes must be sprinkled on the field. Between the 11th of April and the 11th of May, after a shower of rain and a ploughing, the seed is sown broad-cast, one *Poray* to a *Poray-candum*, or 2½ bushels to an acre. Some farmers plough in the seed, while others cover it with a hoe. It then gets a sprinkling of ashes, the whole cow-dung being burned. The weeds are removed by the hand one month after the seed has been sown; and at the same time, if possible, some more ashes should be given. After this the banks are repaired, and the water is confined on the field About the middle of July the weeds must be again removed. The seed time is sometimes a month later than that here stated. The kinds of rice thus cultivated are *Wonamuttum*, *Velletty vuttum*, and *Ericalay sambau*, requiring four months to ripen; and *Arien*, which requires six months to come to maturity.

Dry-seed.

1800. Dec. 10, 11. Sprouted-seed.

The sprouted seed cultivation is managed here as follows. The ploughing season lasts six months, commencing about the middle of May. During any thirty days of this period, the field is ploughed from twelve to eighteen times, and is always kept full of water, except when the plough is at work; then the field is drained until the water does not stand deeper than a hand's breadth. At each ploughing, some leaves of any bush or weed that can be procured are put into the mud. Then manure is given, twenty baskets to one *Poray* of land. After this the mud is smoothed, by dragging over it a plank yoked to two oxen; and the water is allowed to drain off completely, by two or three small channels formed with the hoe. The prepared seed is then sown, as thick as in the dry-seed cultivation. Ten days afterwards two or three inches of water are allowed to rest on the field, and as the corn grows the depth is increased. When it is a month old, some ashes are sprinkled on it. This requires no weeding. The kinds of rice thus cultivated are fifteen in number, and require from three to six months to ripen.

Transplanted rice.

The manner of ploughing, and manuring, for the transplanted cultivation, is the same as for the sprouted-seed, and is performed at the same season. If the ground be clean, the seedlings are transplanted immediately from the field in which they were raised, into that in which they are to be reared to maturity; but if this be full of worms, they are exposed for three days in bundles on the little banks that separate the rice-plots; and there, in order to harden them, they are kept with their roots uppermost. When they are planted, the field contains about three inches depth of water. On the fourth day it gets nine inches, and ever after is kept inundated to that depth. Good farmers manure the field ten days after it has been planted. It requires no weeding.

Two crops.

The first crop may be cultivated after any of these three methods The dry-seed cultivation requires by far the least trouble, and, if the early rains are copious, is equally productive with the others. Of the other two, the transplanted rice is rather the most troublesome; but, being most productive, it is much more commonly employed. In the second crop, the dry-seed cultivation cannot be used.

On the (*Dhanmurry*) low land no other article but rice is cultivated.

Parum, or high land.

The only grains cultivated on the higher lands here are *Carum Pyro* (*Dolichos catsjang*), *Wulindu* (*Phaseolus minimoo*), and *Ellu* (*Sesamum*), and these in very small quantities. In the island of *Manu-pu*am* a large share of the whole land is of this kind, and by far the greatest part of it is totally waste. The whole might probably be cultivated for these grains, or planted with coco-nut trees,

Coco-nut plants.

which in gardens near the sea coast are the principal object, and which indeed near the sea are the most valuable articles cultivated; for there is always a great demand for them from the countries to the northward, where they do not thrive; and, as they are a bulky article, a vast saving is made by raising them near water carriage.

Having assembled the most wealthy proprietors of coco-nut plantations, I obtained the following account of the manner in which these are formed. 1800. Dec. 10, 11.

The soil reckoned fittest for the coco-nut is a mixture of mud with a very large proportion of sand; and such is generally found in greatest quantity near the banks of rivers, where the tide flows; and near inlets from the sea, by which the whole coast is very much intersected, although they have not a depth of water sufficient to admit ships. Manner of rearing the *Cocos nucifera*, or coco-nut.

The *Parum*, or garden, called *Oart* by the English, having been inclosed, between the 12th of May and the 11th of June, holes are dug throughout for the reception of the young palms. These pits are 1 *Varacolu* (28$\frac{4}{7}$ inches) square, and the same in depth. They are placed at the distance from each other, in all directions, of 12 *Varacolus*, or 28 feet 7$\frac{1}{2}$ inches. In the bottom of each pit is then dug a small hole, in which is placed a young palm, or coco-nut tree together with some ashes and salt. A little earth is then put round the roots, the young tree receives a little water, and some thorns are put round the pit. For the first three weeks water must be given three times a day; afterwards, until the garden is three years old, the trees must be watered once in two days. Once every month a little ashes must be put into each pit. Between the 12th of June and the 13th of July of the third year, a trench one cubit deep is dug round the young tree, at 1$\frac{1}{2}$ cubit from the root. The use of this is to confine the water near the tree during the rainy season. When this is over, between the 15th of October and the 13th of November, the whole garden is ploughed, and the trenches are levelled. Every year afterwards, before the rains commence, the trenches are renewed, and each tree is allowed a basket full of ashes. When the rainy season is over, the garden is ploughed again, and the trenches are filled. The cattle of the proprietor are always folded in the garden, and in the course of the year moved over the whole. The fold is covered with a roof. Between the 10th of February and the 10th of April the grass that has sprung up in the plantation is burned. The young plants are raised from the seed as follows. Between the 12th of June and the 13th of July, the nuts for seed are ripe. At that time a plot of ground is dug to the depth of three-fourths of a cubit. The nuts are placed on this, contiguous to each other, and sunk to the earth three-fourths of their height, the eyes being placed uppermost The plot is then sprinkled with ashes, and a bank of earth is formed round it to confine the water. The following day, if no rain falls, the plot must be watered. After the rainy season is over, it is watered every second day, and once a month gets some ashes. In three or four months the nuts begin to shoot. In three years the young plants are fit for being removed; and the nut even then adheres to some of them, although not to all. The gardens are not allowed to die out, and then formed anew, as in some places is the case with the coco-nut plantations; but, as one tree dies

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a new one is set in its stead. The coco-nut palm, after having been transplanted, begins to bear in from thirteen to sixteen years. It continues in full vigor forty years, and lives for about thirty years more, but is then constantly on the decline.

Produce of the coco-nut plant.

When the trees begin to flower for the first time, a trial is made by cutting a young flowering branch (*spatha*), to ascertain whether it will be fit for producing nuts, or for producing palm-wine. If the cut bleed, it is fit for the latter purpose, and is then more valuable than a tree whose *Spatha*, when cut, continues dry, and which is fit only for producing nuts. The palms fit for wine are let to the *Tiars* or *Shanars*, who extract the juice, and boil it down to *Jagory*, or distil it to extract arrack. In a good soil the trees yield juice all the year; but on a poor soil they are exhausted in six months. A clever workman can manage from 30 to 40 trees, and pays annually for each from 1 to ½ *Fanam*. Coco-nut *Jagory* is reckoned better than that of the *Brab* (*Borassus*), and on an average sells at 2 *Fanams* the *Tolam*, or 3*s*. 8*d*. the hundred-weight. This account must be compared with that which was afterwards given by the *Tiars*, or men who manage the palms.

The *Cudian*, or occupant of the garden, cultivates the soil, and collects the nuts. Each tree produces five or six bunches, and each bunch seven or eight full grown nuts, or fourteen or fifteen of an inferior size, and of very little value. A little bad *Coir* (or cordage) is made from the husks of the nuts that are used green in the country. A few of the nuts are exported with the husk on; but in general they are sent to the north inclosed in the shell only.

Money advanced by merchants for the nuts.

They are bought up by the *Moplay* merchants, who make advances from six to three months before the time of delivery. The price advanced is from two to three *Fanams* for every hundred nuts which the garden is expected to produce. If the occupant be not necessitated to make advances, he will be able to sell his nuts at from 4 to 4½ *Fanams* the hundred. If the produce of the garden be greater than that for which advances have been made, the occupant sells the overplus as he pleases; but, if he has been too sanguine in his expectations, and has received advances for more than he can deliver, he must pay for the deficiency, not at the rate of the advance, but at the rate of the market.

Rent and Produce.

A proprietor, who lets his garden, gets from 8 to 15 *Fanams* rent (*Patom*) for every hundred trees; and the occupant (*Cudian*) pays the land-tax, which is half a *Fanam* for every tree that is in full bearing: old and young trees are exempted, as unproductive. Mr. Drummond says, that in fact not above ten trees in a hundred pay the tax; while all the others, under pretence of being aged or young, are excused. He also alleges, that the trees are much more productive than the proprietors acknowledge, and give annually from 80 to 100 nuts. Monkeys and mice (squirrels?) are very destructive in the plantations of *Shetuwai*.

Among the coco-nut trees are raised plantains, and a variety of kitchen stuffs, called here *Caigari*, on which no tax is exacted. There are also planted many fruit trees, especially *Jacks* (*Artocarpus integrifolia*) and *Mangoes* (*Mangifera*). The fruit of the former enters largely into the food of the natives, and has always a ready sale; so that, the tree being valuable, a tax is levied on it. The *Mangoes* are so numerous, that they are not saleable, and no tax is demanded for them. 1800. Dec. 10, 11. Fruit and kitchen gardens.

In *Malabar* there are no *Betel-leaf* gardens; but every person who has a garden plants a few vines of the *Betel* (*Piper Betle*), and allows them to climb up the *Mango* trees, or any others that are most convenient. Once in three years the vines are renewed. Although in most parts of India the *Betel-leaf* is an object of taxation that produces a considerable and fair revenue, in *Malabar* no tax has been imposed on it; but this seems by no means to have been of service to the people; as very large quantities of the leaf are imported from *Coimbetore*, where a heavy tax is levied, and no drawback allowed. *Betel-leaf.*

The quantity of *Betel-nut* and pepper that is raised on the sandy levels near the sea is so small, that for the present I shall defer saying anything concerning these valuable productions.

The tenures by which plantations are held differ considerably from those by which the *Paddum, Dhanmurry*, or low land, has been granted by the *Namburis*. When a man wishes to plant a space of *Parum* land, he obtains from the landlord a lease called *Cuey Canum*, which is granted for a time sufficient to allow him at least two years full produce from the garden, and often much longer. If the lease be for any considerable time, he in general pays some money in advance, which is called the *Canum*, or mortgage. When the term of the lease has expired, the landlord may resume the plantation, by paying up the mortgage, and liquidating the amount of all the charges incurred by the *Canumcar*, or mortgagee, for buildings, wells, fences, &c., together with the value of the trees brought to maturity. The amount of these sums due to the mortgagee by the landlord, who wishes to reassume a plantation, is generally determined by arbitration. When the lease has expired, and the sum due to the (*Cuey Canumcar*) mortgagee has been determined, the landlord either reassumes the garden by liquidating the claims of the planter, or he grants it to the planter on proper *Canum*, or full mortgage. In this case, the *Patom*, or neat rent of the garden, having been ascertained to the satisfaction of both parties, the mortgagee agrees to pay the amount to the landlord, after deducting the land-tax, and the interest of his claims; which are then consolidated into one sum, called *Canum*, or mortgage. Tenures by which plantations are held.

In Mr. Smee's valuable survey, the trees producing less than ten nuts are considered as altogether unproductive, and therefore it is proposed to exempt them entirely from taxes. Taking the average of all the trees yielding above ten nuts, the produce of each is stated Produce of a Coco-nut tree.

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by him to be 33 nuts. I confess, that Mr. Smee's opportunities of information were in many respects superior to mine, and his assiduity could not be exceeded; yet I suspect, that he has very much underrated the produce, and am induced to do so both from the confession of the natives, and from the appearance of the bunches on the trees. His inquiries were attended with one great disadvantage; namely, that they were avowedly made with a view to assessment; and of course all means possible were taken to conceal the truth, and to diminish the value of the produce.

Assessment by *Arshid-Beg-Khan.*

When *Arshid-Beg-Khán*, by the orders of *Hyder*, imposed a tax on the plantations of *Malabar*, he formed an estimate of their produce; and then, having calculated the average amount of the produce of a tree, he imposed upon each what he considered as a fair tax. The amount of this on every coco-nut palm was half a *Fanam.* Old and young trees were exempted, which has given rise to immense frauds on government. The young trees, of course, ought in justice to be exempted, because they do not produce any fruit; but old trees ought either to be paid for, or to be cut, there being no possible means of ascertaining what trees are really productive enough to afford the tax. If the rate be found too heavy, it would be much better for government to lower it, and to exact the tax for every tree above a certain age that a person chose to have in his plantation. Mr. Smee thinks the tax on coco-nuts, imposed by *Arshid-Beg-Khán*, too high, and has proposed to reduce it to one-third of a *Fanam.* According to his own estimate, the average produce of a tree is worth $1\frac{155}{1000}$ *Fanam:* now above the *Ghats* the cultivators of gardens pay one-half of the produce, in a less favourable soil and climate, and yet are reckoned to possess by far the most valuable property that is in the country, and new plantations are forming in every part that will admit of them. I do not see, therefore, why the people of *Malabar* should cry out against the tax in the manner they do: and I perfectly agree with Mr. Smee in thinking that the tax proposed by him is extremely moderate. Say, that a man has a garden containing 40 trees, rateable according to Mr. Smee's plan of excluding all those which do not produce more than ten nuts; the produce of these, at 33 nuts a tree, will be 1320; which, according to Mr. Smee, are worth at the rate of 35 *Fanams* a thousand: the produce is therefore worth

		Fanams 47 10
Deduct revenue	13 $13\frac{1}{3}$	
Annual charges	8 0	
		21 $13\frac{1}{3}$
Clear profit		25 $36\frac{2}{3}$

Out of which is to be deducted the interest of the money employed in making the garden. But this is not the whole that the proprietor of the garden receives. In these gardens he cultivates plantain trees, and all kinds of kitchen stuffs, free from rent; and, what is still

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more, he has the whole produce of the trees reckoned not productive. These, in a garden containing 40 productive trees, may safely be taken at 25 trees, each producing six nuts, which amount to 150, in all worth 5¼ *Fanams*: so that the proprietor's share, after deducting the expense of cultivation, amounts to nearly three-fifths of the gross produce.

The *Negadi* on plantations a bad tax.

This whole system of finance, however, appears to me unfavourable to the revenue, and injurious to the morals of the people. It can only be exacted, either by suffering immense frauds, or by constant surveys carried on at a great expense: while all the officers of revenue, and all the proprietors will be constantly exposed to temptations that are scarcely to be resisted, owing to the difficulty attending their detection. The quantity of the produce of these plantations that is consumed in this country, except that used for distillation, is inconsiderable, and in a fiscal view may be altogether neglected; and that which is exported, being a bulky article, may, by means of an excise, be made a source of revenue to any extent, compatible with leaving such a profit to the cultivators, as to make it worth their while to raise the commodity. I understand, that the *Rajas* of *Travancore* have adopted a plan somewhat analogous with their pepper, which in the plantations of *Malabar* is one of the grand articles of produce. In their dominions, they are the only merchants who are permitted to deal with foreigners in that article. They take from the cultivator the whole pepper produced in their country, at a fixed price, and dispose of it in the best manner that they can. The Company have adopted in *Bengal* a similar management with respect to salt and opium, and even advance money to carry on the manufacture and cultivation of these articles of commerce; and no doubt the same might be done with the pepper, coconut, and *Betel* of *Malabar*. I am inclined, however, to give the preference to duties levied on the export, and checked by an excise; it being dangerous, wherever it can be avoided, for the sovereign to act as a merchant. My opinion is, therefore, that all *Negadi*, or taxes on plantations, should be done away in *Malabar*; and, in place of them, either a tax should be imposed on the exportation of their produce; or the Company should agree to receive all that is brought to the sea coast, or frontier, at such a price as would allow them a profit, and the cultivator a reasonable encouragement. The latter plan, of course, implies an absolute monopoly; and the former, in order to avoid the frauds incident to duties levied by custom-houses, requires the establishment of an excise. Either plan, however, seems to me greatly preferable to that system of falsehood and deceit which is at present employed.

New tax proposed in its stead.

Value of coconut plantations.

In order to judge of the value of ground cultivated with coconuts, let us suppose a plantation, as described by the proprietors of 100 trees, which will occupy 81,940 square feet. Among these the taxable trees, according to the general proportion of the country, as established by the survey, will be 34 trees, producing 1122 coco-

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nuts; to which we may safely add 128, for those produced by trees not taxable. The produce is then worth to the cultivator 43¾ *Fanams,* besides plantains, kitchen-stuff, coco-nut leaves, &c., &c., and the tax paid at Mr. Smee's rate would be 11⅓ *Fanams.* Reducing these measures to the English standard, the produce of an acre will be 12*s.* 8½*d.,* and the tax will be 3*s.* 3½*d.,* taking the *Fanam* at 3½ for the *Rupee.*

Mortgages.

I have already mentioned how far the tenure by mortgage (*Canum*) is prejudicial to improvement. In order to remedy this in some measure, Mr. Drummond compels all landlords, when sued for the payment of a mortgage, either to pay the money or to sell the estate. This seems to be contrary to the customary law of the country, but will no doubt be advantageous.

Value of slaves and allowance given them.

At *Manapuram* a slave, when 30 years old, costs about 100 *Fanams,* or 2*l.* 14*s.* 7*d.*; with a wife he costs double. Children sell at from 15 to 40 *Fanams,* or from 8*s.* 2¼*d.* to 21*s.* 10*d.* A working slave gets daily three-tenths of a *Poray* of rough rice, or about 36½ bushels a year. He also gets annually 1 *Fanam* for oil, and 1½ *Fanam* for cloth, which is just sufficient to wrap round his waist. If he be active, he gets cloth worth 2 *Fanams,* and at harvest time from 5 to 6 *Porays* of rough rice. Old people and children get from one to two-thirds of the above allowance, according to the work which they can perform.

Dec. 12.
Chowgaut.

12th *December.*—I went with Mr. Drummond to his house at *Chowgaut,* which, for what reason I do not know, is called by the natives *Shavacadu,* or *deadly forest.* The town is a small place, chiefly inhabited by *Moplays* and *Nazarens,* and is the sea-port belonging to the *Nazareny* town named *Cunnung Colung Curry.*

Chakram, or wheel for raising water.

On the way I examined a machine, by which the natives remove superfluous water from their rice-grounds, when there is no level, by which these can be drained. It is called *Chakram,* or the wheel, and is represented in Plate XX. Figure 51. The arms of the wheel are 3 feet long, and 14 inches broad, and are confined in a case consisting of planks, and supported by four feet (a b, a b). That part of the case (b b) which is farthest from the center of the wheel, being placed towards the bank inclosing the field; so that the upper part of the segment of a circle (c c c), that lines the bottom of the case, is on a level with the top of the bank; while all the lower part of the case is immersed in the water; it is evident, that each arm of the wheel moving from a to c will force out, by the opening b c, the volume of water contained between the lines a d, d c, and the segment of the circle c c c. The wheel is moved by six men, who support themselves on slight *Bamboo* stages, and push the upper arms of the wheel with their feet. Two sets relieve each other, and three *Chakrams,* or 36 men, will, in the course of a day, clear ten *Porays* of three feet of water. The ten *Porays* are 1⅓ acre, and the quantity of water thrown out is 174,800 cubical feet.

Nazarens.

The *Nazareny* priest (*Papa*) of *Chowgaut* waited on us, to inform

PLATE XX.

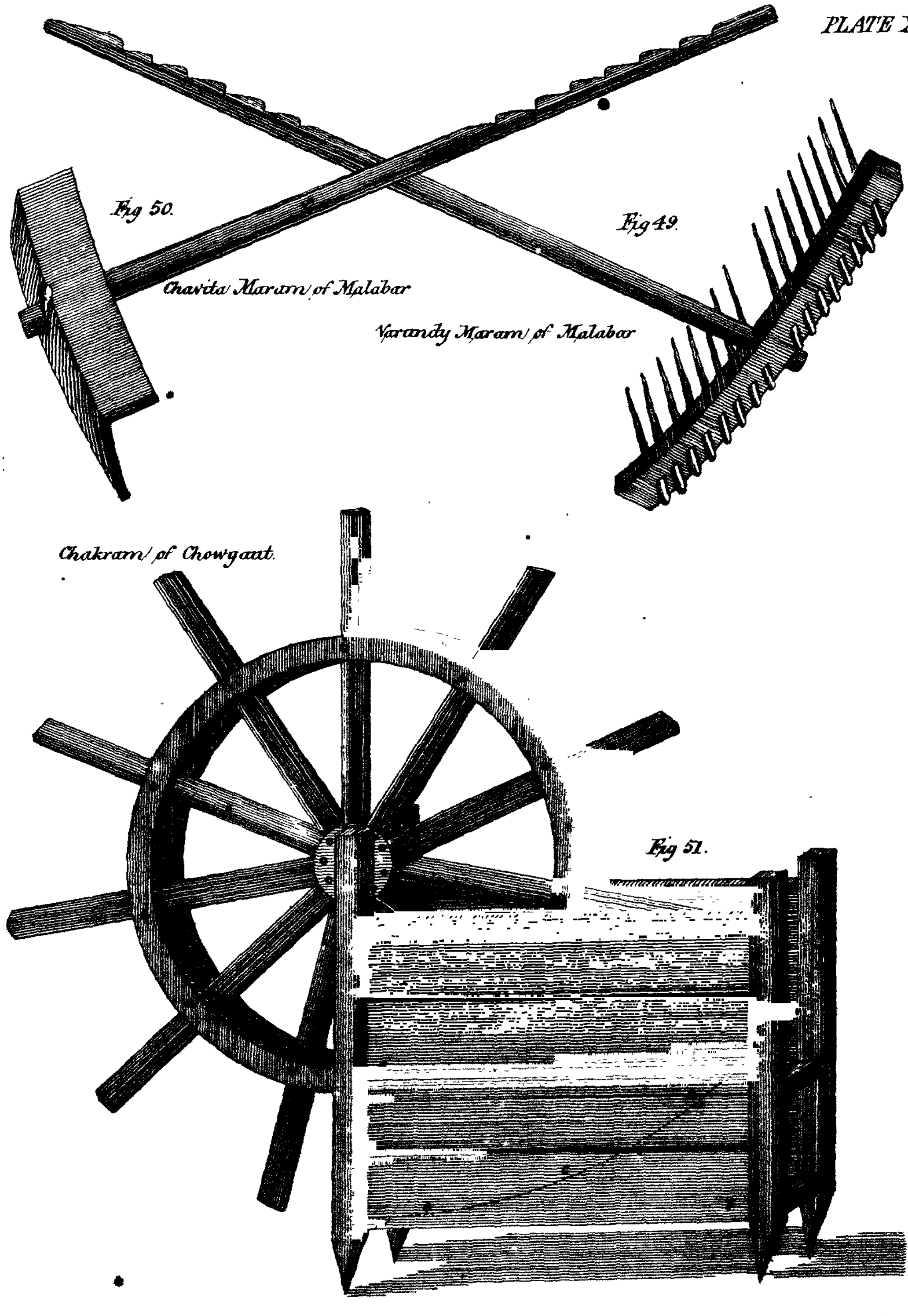
Fig 50.
Fig 49.
Chavita Maram of Malabar
Varandy Maram of Malabar
Chakram of Chowgaut.
Fig 51.

me, that my wishes for procuring the history of the sect in India had been communicated to the metropolitan, who desired him to say, that a copy of the chronicle would be sent to me through Mr. Drummond. Unfortunately, I have not received any account from that quarter. The *Papa* denied that the *Nazarens* give liberty to such of their slaves as are converted; probably thinking that the conversion might be attributed to this circumstance, more than to the apostolical virtues of his brethren. He also maintained, that the sect was rapidly increasing in numbers, and daily gaining proselytes. In these points he differed in his account from the *Papa* whom I had before seen. 1800. Dec. 12.

Having assembled the most respectable of the *Nairs* in this neighbourhood, they gave me the following account of their customs. Customs of the *Nairs* in the south of *Malabar* Divisions.

The *Nair*, or in the plural the *Naimar*, are the pure *Súdras* of *Malayala*, and all pretend to be born soldiers; but they are of various ranks and professions. The highest in rank are the *Kirum*, or *Kirit Nairs*. On all public occasions these act as cooks, which among *Hindus* is a sure mark of transcendent rank; for every person can eat the food prepared by a person of higher birth than himself. In all disputes among the inferior orders, an assembly of four *Kirums*, with some of the lower orders, endeavour to adjust the business. If they cannot accomplish this good end, the matter ought to be referred to the *Namburis*. The *Kirit Naimar* support themselves by agriculture, or by acting as officers of government, or accomptants. They never marry a woman of any of the lower *Nairs*, except those of the *Súdras*, or *Charnadu*, and these very rarely. The second rank of the *Nairs* are called *Súdra*, although the whole are allowed, and acknowledge themselves to be of pure *Súdra* origin. These *Súdra Nairs* are farmers, officers of government, and accomptants. They never marry any girls but those of their own rank; but their women may cohabit with any of the low people, without losing caste, or their children being disgraced. The third rank of *Nairs* are the *Charnadu*, who follow the same professions with their superiors. The fourth are the *Villium*, or *Villiit Naimar*, who carry the palanquins of the *Namburis*, of the *Rájas*, and of the persons on whom these chiefs have bestowed the privilege of using this kind of conveyance: they are also farmers. The fifth rank of *Nairs* are the *Wattacata*, or oil-makers, who are likewise farmers. The sixth rank, called *Attacourchis*, are rather a low class of people. When a *Nair* dies, his relations, as usual among the *Hindus*, are for fifteen days considered unclean, and no one approaches them but the *Attacourchis*, who come on the fifth, tenth, and fifteenth days, and purify them by pouring over their heads a mixture of water, milk, and cow's urine: the *Attacourchis* are also cultivators. The seventh in rank are the *Wullacutra*, who are properly barbers; but some of these also cultivate the ground. The eighth rank are the *Wullaterata*, or washermen, of whom a few are farmers. The ninth rank is formed of *Tunar Naimar*, or tailors.

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The tenth are the *Andora*, or pot-makers. The eleventh and lowest rank are the *Taragon*, or weavers; and their title to be considered as *Naimar* is doubtful; even a pot-maker is obliged to wash his head, and purify himself by prayer, if he be touched by a weaver.

The men of the three higher classes are allowed to eat in company; but their women, and both sexes of all the lower ranks, must eat only with those of their own rank.

Nambirs.

Among the two highest classes are certain persons of a superior dignity, called *Nambirs*. These were originally the head men of *Désams*, or villages, who received this title from an assembly of *Namburis* and *Tamburans*, or of priests and princes; but all the children of *Nambirs'* sisters are called by that title, and are considered as of a rank higher than common.

Pride and barbarity.

The whole of these *Nairs* formed the militia of *Malayala*, directed by the *Namburis* and governed by the *Rajas*. Their chief delight is in arms; but they are more inclined to use them for assassination, or surprise, than in the open field. Their submission to their superiors was great; but they exacted deference from those under them with a cruelty, and arrogance, rarely practised, but among *Hindus* in their state of independence. A *Nair* was expected instantly to cut down a *Tiar*, or *Mucuai*, who presumed to defile him by touching his person; and a similar fate awaited a slave, who did not turn out of the road as a *Nair* passed.

Priests.

The *Nairs* have no *Puróhitas*; but at all their ceremonies the *Elleadu*, or lowest of the *Namburis*, attend for charity (*Dharma*), although on such occasions they do not read prayers (*Mantrams*) nor portions of scripture (*Sastrams*). The *Namburi Bráhmans* are the *Putteris* or *Gurus* of the *Naimar*, and bestow on them holy water, and ashes, and receive their *Dana*, and other kinds of charity.

Knowledge and doctrines.

The proper deity of the *Naimar* caste is *Vishnu*; but they wear on their foreheads the mark of *Siva*. They offer frequent bloody sacrifices to *Marima*, and the other *Saktis*, in whose temples the *Namburis* disdain not to act as priests (*Pújaris*); but they perform no part of the sacrifices, and decline being present at the shedding of blood. The *Nairs* can very generally read and write. They never presume to read portions of the writings held sacred (*Sastrams*); but have several legends in the vulgar language. They burn the dead, and suppose that good men after death go to heaven, while bad will suffer transmigration. Those, who have been charitable, that is to say, have given money to religious mendicants, will be born men; while those who have neglected this greatest of *Hindu* virtues, will be born as lower animals. The proper road to heaven they describe as follows. The votary must go to *Kasi*, and then perform the ceremony in commemoration of his ancestors at *Gya*. He is then to take up some water from the *Bhagirathi*, or *Ganges*, and pour it on the image of *Siva* at *Ramésuara*. After this he must visit the principal *Kshétras* and *Tirthas*, or places of pilgrimage, such as *Jagarnat*, and *Tripathi*, and there he must wash in

the *Puscarunny*, or pool of water that sprung forth at the actual presence of the god. He must always speak truth, and give much charity to learned and poor *Bráhmans*. He must have no carnal knowledge of any woman but his wife, which with a *Nair* confines him to a total abstinence from the sex. And lastly, in order to obtain a place in heaven, the votary must very frequently fast and pray.

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Sexual intercourse.

The *Nairs* marry before they are ten years of age, in order that the girl may not be deflowered by the regular operations of nature; but the husband never afterwards cohabits with his wife. Such a circumstance, indeed, would be considered as very indecent. He allows her oil, clothing, ornaments, and food; but she lives in her mother's house, or, after her parents' death, with her brothers, and cohabits with any person that she chooses of an equal or higher rank than her own. If detected in bestowing her favours on any low man, she becomes an outcast. It is no kind of reflection on a woman's character to say, that she has formed the closest intimacy with many persons; on the contrary, the *Nair* women are proud of reckoning among their favoured lovers many *Bráhmans, Rájás*, or other persons of high birth: it would not appear, however, that this want of restraint has been injurious to population. When a lover receives admission into a house, he commonly gives his mistress some ornaments, and her mother a piece of cloth; but these presents are never of such value, as to give room for supposing that the women bestow their favours from mercenary motives. To this extraordinary manner of conducting the intercourse between the sexes in *Malayala*, may perhaps be attributed the total want, among its inhabitants, of that penurious disposition so common among other *Hindus*. All the young people vie with each other, who shall look best, and who shall secure the greatest share of favour from the other sex; and an extraordinary thoughtlessness concerning the future means of subsistence is very prevalent. A *Nair* man, who is detected in fornication with a *Shanar* woman, is put to death, and the woman is sold to the *Moplays*. If he have connection with a slave girl, both are put to death; a most shocking injustice to the female, who, in case of refusal to her lord, would be subject to all the violence of an enraged and despised master.

Succession.

In consequence of this strange manner of propagating the species, no *Nair* knows his father; and every man looks upon his sisters' children as his heirs. He, indeed, looks upon them with the same fondness that fathers in other parts of the world have for their own children; and he would be considered as an unnatural monster, were he to show such signs of grief at the death of a child, which, from long cohabitation and love with its mother, he might suppose to be his own, as he did at the death of a child of his sister. A man's mother manages his family; and after her death his eldest sister assumes the direction. Brothers almost always live under the

1800. Dec. 12. same roof; but, if one of the family separates from the rest, he is always accompanied by his favourite sister. Even cousins, to the most remote degree of kindred, in the female line, generally live together in great harmony; for in this part of the country love, jealousy, or disgust, never can disturb the peace of a *Nair* family. A man's moveable property, after his death, is divided equally among the sons and daughters of all his sisters. His landed estate is managed by the eldest male of the family; but each individual has a right to a share of the income. In case of the eldest male being unable, from infirmity or incapacity, to manage affairs of the family, the next in rank does it in the name of his senior.

Diet. The *Naimar* are excessively addicted to intoxicating liquors, and are permitted to eat venison, goats, fowls, and fish.

Dec. 13. Face of the country. 13th *December*.—Having taken leave of my kind friends, Messrs. Waddel and Drummond, I went about twelve miles to *Valiencodu*, which in our maps is called *Billiancotta*. The road passes over sandy downs near the sea, and on each side has a row of *Banyan* trees (*Ficus benyalensis*); but in such situations they do not thrive. To the right were large plantations of coco-nut trees and rice fields. Toward the sea were scattered a few groves of palms. The appearance of the country is very inferior to that of the inland parts of the province.

Peneturu Raja. *Valiencodu* is a small open village, containing about 45 houses, and a few shops. Near it is a ruinous fort. It is situated in a district called *Vaneri Nadu*, which belonged to the *Peneturu Raja*, one of those who were dependent on the *Tamuri*, and who now receives from the Company a fifth part of the revenue. Being a man of some abilities, he is entrusted, under authority of the collector, with the management of the revenue. I was visited by a relation of his, called the *Manacalatu Raja*, who came with a *Namburi*, and eight or ten *Naira*, following his palanquin. He was a poor looking old man, stupified with drink. He said, that one-half of his own country, and that of his kinsman, had been situated in the *Cochi Raja's* dominions, and that they had been entirely stript of this share ever since they fled to *Travancore* to avoid *Tippoo's* bigoted persecution. He afterwards began to talk as if the Company had taken from him the remainder; but he became sensible of his error, on being asked what he possessed when the Company conquered *Malabar*.

Religious buildings of *Malabar*. The province of *Malabar* has no very large temples; and even those which are dedicated to the great gods are of very miserable structure. Those dedicated to the *Saktis* are few in number, and are not ornamented with images of potter's work, like those of *Coimbetore*. There are no buildings for the accommodation of travellers. Near the sea-coast are many *Meshids*, or mosques, built by the *Moplays*. These are poor edifices with pent roofs.

Customs of the *Niadis*. The *Niadis* are an outcast tribe common in *Malabar*, but not numerous. They are reckoned so very impure, that even a slave

will not touch them. They speak a very bad dialect, and have 1800.
acquired a prodigious strength of voice, by being constantly necessi- Dec. 13.
tated to bawl aloud to those with whom they wish to speak. They absolutely refuse to perform any kind of labour; and almost the only means that they employ to procure a subsistence is by watching the crops, to drive away wild hogs and birds. Hunters also employ them to rouse game; and the *Achumars*, who hunt by profession, give the *Niadis* one fourth part of what they kill. They gather a few wild roots, but can neither catch fish, nor any kind of game. They sometimes procure a tortoise, and are able, by means of hooks, to kill a crocodile. Both of these amphibious animals they reckon delicious food. All these resources, however, are very inadequate to their support, and they subsist chiefly by begging. They have scarcely any clothing, and every thing about them discloses want and misery. They have some wretched huts built under trees in remote places; but they generally wander about in companies of ten or twelve persons, keeping at a little distance from the roads; and when they see any passenger, they set up a howl, like so many hungry dogs. Those who are moved by compassion lay down what they are inclined to bestow, and go away. The *Niadis* then put what has been left for them in the baskets which they always carry about. The *Niadis* worship a female deity called *Maladeiva*, and sacrifice fowls to her in March. When a person dies, all those in the neighbourhood assemble and bury the body. They have no marriage ceremony; but one man and one woman always cohabit together; and among them infidelity, they say, is utterly unknown.

A wretched tribe of this kind, buffeted and abused by every one, and subsisting on the labour of the industrious, is a disgrace to any country; and both compassion and justice seem to require, that they should be compelled to gain a livelihood by honest industry, and be elevated somewhat more nearly to the rank of men. Perhaps *Moravian* missionaries might be employed with great success, and at little expense, in civilising and rendering industrious the rude and ignorant tribes that frequent the woods and hills of the peninsula of India. In the execution of such a plan, it would be necessary to transport the *Niadis* to some country east from *Malabar*, in order to remove them from the contempt in which they will always be held by the higher ranks of that country.

Customs of the *Tiars*, or *Shanars*.

The *Shanar*, who in the dialect of *Malayala* are properly called *Tiar*, are in *Malabar* a very numerous tribe, and a stout, handsome, industrious race. They do not pretend to be of *Súdra* origin, and acknowledge themselves to be of the impure race called *Panchamas*; but still they retain all the pride of caste; and a *Tiati*, or female of this caste, although reduced to prostitution, has been known to refuse going into a gentleman's palanquin, because the bearers were *Mucuar*, or fishermen, a still lower class of people. All *Tiars* can eat together, and intermarry. The proper duty of the caste is to extract the juice from palm trees, to boil it down to *Jagory*, and to

1800. Dec. 13. distil it into spirituous liquors; but they are also very diligent as cultivators, porters, and cutters of firewood. They have no hereditary chiefs, and all disputes among them are referred to the *Tamburan*, or officers of government. In every *Désam* certain *Tiars* were formerly appointed to a low office, called *Tondan*, which gave them powers similar to those enjoyed by the *Totis* above the *Ghats*. At present, the duties of these officers are confined to an attendance at marriages and funerals, where they receive some trifling dues. The *Tiars* have certain families among them, who are called *Panikin*. These can read and write, and instruct the laity, so far as to enable some of them to keep accompts. They are the only *Gurus* received by this caste; and are supposed to dedicate their time to prayer and religious duties, on which account they receive charity. The *Panikin* intermarry with the laity. The deities of the caste are a male named *Mundien*, and a female named *Bagawutty*. On holy days these are represented by two rude stones, taken up for the occasion, and, during the ceremony, placed under a shed: but afterwards thrown away, or neglected. At these ceremonies a fowl is offered up as a sacrifice, and a *Nair* is employed to kill it before the idols. The same *Nair* acts as *Pújári* for the god *Mundien*, adorns the stone with flowers, anoints it with oil, and presents it with fruit. A *Namburi* is employed to be *Pújari* to *Bagawutty*, and this is the only occasion on which the *Tiars* give that class of men any employment. The *Panikins* attend at marriages, but do not read any thing on these occasions. The *Tiars* seem to be entirely ignorant of a state of existence after death. Some of them burn, and some of them bury the dead. They are permitted to eat swine, goats, fowls, and fish; and have no objection to eat animals that have died a natural death. They may also drink distilled liquors, but not palm wine. In fact, they are not so much addicted to intoxication as the *Nairs*. In wealthy families, each man takes a wife; but this being considered as expensive, in poor families the brothers marry one wife in common, and sleep with her by turns. If either of the brothers becomes discontented, he may marry another woman. The whole family lives in the same house, even should it contain two women; and it is reckoned a proof of a very bad temper, where two brothers live in separate houses. It must be observed, that in *Malabar* a family of children are not reckoned burthensome; so that the *Tiars* are induced to adopt this uncommon kind of wedlock, merely to save the trifling expense of several marriages, the whole amount of one of which is as follows: four *Fanams* (2*s*.) given to the girl's parents, a piece of cloth given to herself, and a feast given to the relations. Many of the women are thus unprovided with husbands, a thing very uncommon in India; and, their remarkable beauty exposing them to much temptation, a great many *Tiatis* in the seaport towns are reduced to prostitution. Women continue to be marriageable after the age of puberty, and after the death of a former husband. Adulteresses are

flogged, but not divorced, unless the crime has been committed with a man of another caste. A *Namburi,* who condescended to commit fornication with a *Tiati,* would formerly have been deprived of his eyes, and the girl and all her relations would either have been put to death, or sold as slaves to *Moplays,* who sent them beyond the sea; a banishment dreadful to every *Hindu,* and still more so to a native of *Malabar,* who is more attached to his native spot than any other person that I know. **1800. Dec. 13.**

Having examined the *Tiars* concerning their customs, I then questioned them about the coco-nut plantations; and the account which they gave ought to be compared with that which was given at *Shetuwai* by the proprietors. The *Tiars* say, that there is no distinction between palms that will produce juice, and those that will not; the trees that would produce a good crop of nuts will produce much juice, and sometimes continue to bleed the whole year. Poor trees give juice in the rainy season only, and even then in small quantity. They agree with the farmers in allowing, that trees giving juice are more profitable than those producing nuts; but the extraction of this liquor is apt to injure the palm, and, if continued for years, will kill it. The rent paid by *Tiars* here for twelve good coconut trees is one *Fanam* for twelve months in the year. That paid for bad trees is at the same monthly rate, but is only paid for six months in the year. The proper management of a coco-nut palm requires, that it should be allowed to bear fruit two years; after which, toddy should be extracted from it for eighteen months, and never afterwards. **Coco-nut plantations.**

When the *spadix,* or flowering branch, is half shot, and the *spytha,* or covering of the flowers, has not yet opened, the *Tiar* cuts off its point, binds the stump round with a leaf, and beats the remaining part of the *spadix* with a small stick. For fifteen days this operation is repeated, a thin slice being daily removed. The stump then begins to bleed, and a pot is fixed under it to receive the juice, or *Callu,* which the English call *Toddy.* Every day afterwards, a thin slice is taken from the surface of the stump, which is then secured by a ligature; but after it has begun to bleed, the beating is omitted. The juice is removed once a day. If it be intended for drinking, nothing is put into the pot, and it will keep for three days. On the fourth day it becomes sour; and what has not been sold to drink while fermenting, is distilled into arrack: the still is like that described at *Malur,* but the head is made of tin. The liquor is distilled without addition, and the spirit is not rectified. In the pots intended to receive juice that is to be boiled to *Jagory,* a little quick lime must be put, to prevent fermentation; and the juice must be boiled on the same day that it is taken from the tree. Twelve trees daily fill with juice a large pot, which, when boiled down, gives six balls of *Jagory,* each worth one *Caas*; that is 180 *Caas,* or 5 *Fanams* a month for the produce of twelve trees; out of which the *Tiar* pays one *Fanam* to the proprietor of the trees, and has four *Fanams* for his trouble. The *Tiars* say, that a man cannot manage *Callu, or Toddy.*

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more than twelve trees; the cultivators allege, that an active man can manage four times that number.

Produce of a coco-nut palm.

The coco-nut palm, during the season that it is productive, pushes out a new *spadix* once a month; and after each *spadix* begins to bleed, it continues to produce freely for a month, by which time another is ready to supply its place. The old *spadix* continues to give a little juice for another month, after which it withers; so that there are never more than two pots to one tree. Each of these *spadices,* if allowed to grow, would produce a bunch of nuts, containing from two to twenty. When the nuts are very numerous, they grow to an inconsiderable size, and are of little value; and from seven to ten good nuts may be considered as the average produce of each bunch. Trees in a favourable soil produce twelve bunches in the year; ordinary trees give only six bunches. From this it does not appear to me, that the gross average produce can be possibly calculated at less than fifty nuts a tree.

CHAPTER XII.

ROUTE FROM VALIENCODU TO CODUWULLY THROUGH PANYANI AND THE CENTRAL PARTS OF MALABAR.

DECEMBER 14th.—I went a short stage to *Panyàni.* Soon after leaving *Valiencodu,* I crossed the mouth of a small river, which, by the influx of salt water as it approaches the sea, is extended to a great width. I was ferried over it by means of two canoes lashed together, which forms a very safe conveyance for baggage, or foot passengers, but is not adapted for cattle, the latter being forced to swim. Orders have been issued by the commissioners to construct proper stages on canoes at every ferry; so that cattle, and even artillery, may be transported with safety. The canoes in this part of *Malabar* are among the best and handsomest that I have ever seen. 1800. Dec 14. Ferries, and boats of *Malabar.*

On the north side of the river is some level marshy ground, into which the tide is received, and salt is formed by the evaporation of the water by the heat of the sun. Between this and *Panyani* the country is very beautiful, and thickly covered with groves of coco-nut trees, which are separated by rice-fields that are now covered with the second crop. This, however, by no means looks thriving. On the mere sand of the sea-shore may be here seen flourishing the coco-nut palm. It is said, that in such situations it produces fruit for ten years only; but that is of little consequence; as it seems to be reared at a very trifling expense, and is afterwards left entirely to nature. Face of the country.

Panyani is also called by the natives *Punany Wacul,* and contains 500 houses belonging to traders, with above forty mosques, and at least 1000 huts inhabited by the lower orders of people. It is very irregularly built; but many of the houses are two stories high, and seem to be very comfortable dwellings. They are built of stone, and thatched with coco-nut leaves. The huts are inhabited by boatmen and fishermen, who were formerly ***Mucuas,*** a low caste of ***Hindus***; but now they have all embraced the faith of Mahomet. All the mosques are thatched, and their principal entrance is at the east end, where the roof terminates abruptly in fanciful mouldings, and carved work, that by the natives are considered as ornamental. The town is scattered over a sandy plain, on the south side of a river, which descends from ***Ani-malaya,*** and enters the sea by a very wide *Panyani,* or *Punany Wacul.*

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channel. The mouth, however, is shut by a bar, which admits boats only to enter.

Patemar boats.

The trading boats are called *Patemars*, and on an average carry 50,000 coco-nuts, or 1000 *Mudies* of rice, equal to 500 Bengal bags. There are many *Patemars* larger, but these seldom frequent this port.

Commerce.

About fifty years ago the *Moplays* of this place were very rich, and possessed vessels that sailed to *Surat, Mocha,* Madras, and Bengal; but the oppression of *Tippoo* has reduced them to great poverty, and most of them are now under the necessity of acting as agents to *Mousa*, a Mussulman merchant of *Tellichery*. They have, however, a few small boats, that go to *Tellichery* and *Calicut* for supplies of European and Bengal goods. The port is also frequented by vessels (*Patemars*) from different places on the coast. Those from Bombay bring wheat, *Meti*, or fenugreek, the pulses called *Wulindu, Pyru,* and *Avaray*, sugar-cane, *Jagory*, and salt; they take back *Teak-wood* and coco-nuts. From *Raja-puram*, a town in the *Marattah* part of *Kankana*, vessels (*Patemars*) bring the same kinds of grain that are brought from Bombay, and also sugar-cane, *Jagory*, and *Cut*, or *Terra Japonica*: they take away the same returns. From *Gheria*, in the same country, are brought much *Jagory* and *Cut*, and coco-nuts are taken in return. Goa sends the same kind of goods that are brought from Bombay. Much rice is exported from hence to the northern parts of the province of *Malabar*. There is no trade between *Panyani* and the *Maldives*. From *Cochin* are brought canoes, spices, sugar, sugar-cane, *Jagory*, wheat, and mustard-seed; and the returns are iron smelted in the interior parts of the country, and rice both rough and freed from the husk. From *Anjengo* are brought cotton cloths wrought there, and coco-nuts. No account is kept here of the arrivals or departures of vessels (*Patemars*); but in the custom-house books every article exported or imported ought to be entered. The returns of these, which I expected from Mr. Drummond the collector, have not reached me.

Moplays.

Panyani is the residence of the *Tangul*, or chief priest of the *Moplays*, who says that he is decended from *Ali* and *Fatima*, the daughter of Mahomet. Both the *Tangul*, and his sister's son, who according to the custom of *Malayala*, is considered as the heir to this hereditary dignity, are very stout, handsome, fair men, but from their countenances would not be suspected to belong to the priesthood. The nephew is a middle-aged man, and at the jollity of a marriage, a few days ago, exerted himself so much, that he burst a blood vessel in his lungs, and could not venture to speak. The *Tangul* was remarkably civil, and, when I returned his visit in the evening, received me with great hospitality, and requested me to eat with him; a thing very uncommon with the natives of India. He promised to send me an account of the arrival of his sect in this country, and has kept his promise. It is written in *Arabic*, and is said to be the original from which *Ferishta* translated the account of this colony that is given in his works. The *Tangul* says, that

his people are called *Moplaymar* in *Malayala*; and *Lubbaymar* at Madras; but among themselves they acknowledge no other name than that of Mussulmans. Being of Arabic extraction, they look upon themselves as of a more honourable birth than the Tartar Mussulmans from the north of India, who of course are of the contrary opinion. The Arabs settled in India soon after the promulgation of the faith of Mahomet, and have made very numerous converts; but in many families of distinction the Arab blood seems as yet uncontaminated. They use a written character peculiar to themselves, and totally different from the present Arabic. The language of their original country is known to few of them, except their priests; and they have never acquired the language of the country in which they live so as to speak it in decent purity, but use a jargon as corrupted as what Europeans in general speak for *Hindustany*. The *Moplays* of *Malabar* are both traders and farmers; the *Lubbaymars* of Madras confine themselves entirely to the former profession. As traders, they are remarkably quiet, industrious people; but those who in the interior parts of *Malabar* have become farmers, having been encouraged by *Tippoo* in a most licentious attack on the lives, persons, and property of the *Hindus*, are fierce, blood-thirsty, bigoted ruffians. In religious matters, the *Tangul* is the head of this sect, and his office is hereditary. Mosques are very numerous. In each presides an *Imam*, or *Mulla*, appointed by the *Tangul*. He usually bestows the office on the sister's son, or heir of the person who last enjoyed the office, unless he should happen to be disqualified by ignorance, or immorality. The *Tangul* has some lands, for which he pays no tax; but the inferior clergy are supported entirely by the contributions of their followers. The late *Sultan*, who wished to make innovations in every thing, did not respect this descendant of his prophet; but appointed another head for the priests of his faith in *Malabar*. This person, called *Arabi Tangul*, resides at *Panyani*; but his followers are now reduced to five or six families, and he has lost one half of the property that *Tippoo* bestowed on his new favourite.

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15th *December*.—I went a long stage to *Adanad*. The country between *Panyani* and *Ternavay*, although higher than the sea-shore, is level; and consists entirely of rice-grounds, which annually produce only one crop, and of which a great part seems to be waste. On leaving the sea-coast, the number of trees, especially of coco-nut palms, decreases fast. I crossed the *Panyani* river at *Ternavay*, where there is a small temple, but no town. The channel of the river is very wide; but at this season most of it is occupied by dry sands. The water is clear, and the stream gentle; the fords are, however, bad, owing to the depth of water, which in most parts is four feet, and no where less than three. Cattle, in crossing it, must therefore be unloaded, and the baggage carried to the other side by the drivers. This river in the rainy season is navigable for canoes almost up to *Pali-ghat*.

Dec. 15. Face of the country. Panyani river.

1800. Dec. 15. Appearance of the country.

After crossing this river, I came to a country like that near the *Nazareny* town in the *Cochi Raja's* dominions, and consisting of narrow vallies surrounded by low bare hills. The vallies produce annually two crops of rice; each having a perennial stream, that is applied to the irrigation of the soil. The roots of the hills are occupied by the houses and plantations of the natives; and their sides in many places have been formed into terraces; but these are very badly cultivated, considering the abundance of rain in this country, which will ensure plenty of water for any crop that does not require more than four months to come to maturity. The soil, in many places of these hills, is very intractable, and consists of a kind of indurated clay, which, on exposure to the air, becomes as hard as a brick, and serves indeed all the purposes of stone.

Namburi Brahmans.

Adanad is no town, but is celebrated as the throne of the *Alvangheri Tamburacul*, or chief of the *Namburis*, who are the *Bráhmans* of *Malayala*. Soon after my arrival I sent a message, by a *Bráhman*, to know, whether it would be most agreeable to this person to receive a visit from me, or for him to come to my tent. The answer was, that he would be very happy to see me whenever I was ready. My politeness was lost on the *Brahman*, who kept me waiting in an outer apartment until my patience was exhausted, and I returned to my tents without the honour of an interview. I then sent to him an order from the government of Madras, commanding all persons to give me such information as I wanted, and desired him to come to my tent. This was complied with, and he came attended by several *Namburis*. The *Alvangheri Tamburacul* having been seated on a chair, which he took care should be higher than mine, I soon discovered that he was an idiot, who grinned with a foolish laugh when the most serious questions were proposed to him. His attendants, however, were men of good sense, and apparently well informed; and from them the following account is taken.

The present *Tamburacul* is descended in the male line from the *Bráhman* who was appointed to that high dignity by *Parasu-rama*, when he created *Malayala* and gave it to the *Namburis*. When a *Tamburacul* is likely to die without male children, he adopts a male of the same family,*and appoints him successor; but, if he have sons, the eldest succeeds of course. *Sankara Acharya*, about 1000 years ago, came to *Malabar*, and made some reforms in the discipline of the *Bráhmans*; but the then *Tamburacul* was far from acknowledging the superiority of that personage, and the present one considers himself as much higher in dignity than the *Sringa-giri Sawmi*, who is the successor of *Sankara Acharya*, and chief of the *Smartal Bráhmans*. The *Tamuri Raja*, as I have already mentioned, affected to consider himself as inferior only to the invisible gods; but this pretension is treated with the utmost contempt by the *Namburis*, the lowest of whom is of a much higher birth than any prince on earth. This high opinion of themselves is attributed to the power that they have of influencing the gods by their invocations (*Mantrams*),

especially to the power which they have, by means of certain forms of prayer, of rendering an image the residence of a god. The *Namburis* pretend, that while this country was governed by princes appointed by the *Sholun Rajas*, these viceroys were entirely subject to the *Alvangheri Tamburaculs*, and did nothing more than, by means of the civil arm, carry their orders into execution. When the office of *Raja* came to be hereditary, by the appointment of *Cheruman Permal*, the *Tamburacul* still pretended to have a right to dispose of the government; but his power was confined to the performance of a ceremony called *Putapayshacum*, which is somewhat analogous to the anointing that our kings use. On this occasion, the *Tamburacul* and his *Namburis* received much *Dána*, and other charities; but they had no authority to reject the next heir. All the *Rajas*, except the *Velat* family, had, for many generations before the conquest, given up the ceremony of *Putapayshacum*. The *Rajas* possessed no authority to punish any *Namburi*, farther than, in case of some very atrocious crime, to banish him from their dominions. The *Namburis* were subject to the jurisdiction of the *Alvangheri*, who in his judgments was always assisted by a council of learned men, and guided by the *Hindu* law. The book that they consult on the subject is the *Asocha Prayaschittum* composed by *Veda Vyasa*, one of the gods, who assumed the form of a *Rishei* and was also the author of the eighteen *Puranas*. The laws of *Menu* seem to be totally unknown to the *Namburis*, who all pretend to be *Vaidikas*, nor do any of them follow lay professions. Few of them, however, are men of learning. The only book on astronomical subjects that those here could mention was the *Jotis Sastram*, which, from their account, is a work on astrology. They will neither eat nor drink with the *Bráhmans* of other countries, whom they call *Puttar*, and whom they consider as very inferior to themselves in dignity. The others are equally proud; and these allege, that *Sankara Achárya*, in consequence of their disobedience, cursed the *Namburis*, and degraded them below the faithful *Bráhmans*, who adhered to his council. The *Namburis*, like other *Bráhmans*, marry, and live with their wives, of whom they take as many as they are able to support. A *Namburi's* children are also considered as his heirs. They do not lose caste on account of fornication with a *Sudra* woman; and indeed, in order to prevent themselves from losing dignity by becoming too numerous, the younger sons of a *Namburi* family seldom marry. They live with the elder brother, and assist the ladies of the *Rajas*, and of the *Nairs* of distinction, to keep up their families; and in general they are the most favoured lovers, the young women of rank and beauty seldom admitting any person to their bed, but a *Bráhman*, and more especially a *Namburi*. A *Namburi* woman loses caste for infidelity, even if the crime has been committed with a *Namburi*. Many *Namburis* have lost caste by having committed murder, or by having eaten forbidden things. In such cases, their children have in general become Mussulmans. The *Namburis* eat

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no kind of animal food, and drink no spirituous liquors. They burn the dead, but a widow is not expected to perish on the funeral pile with the body of her husband. The *Namburis*, like the *Smartal*, allege, that *Siva*, *Bráhma*, and *Vishnu* are the same god; and most of them, like the *Smartal*, wear the mark of *Siva*; but the *Alvangheri Tamburacul* uses the mark of *Vishnu*. They are not too proud to be *Pujaris*, or priests, in even the temples of the *Saktis*; a circumstance that the *Bráhmans* of the East do not fail to mention, in order to render their rivals contemptible.

Persecution of the *Namburis* by *Tippoo*

On the accession of *Tippoo*, the *Namburis* met with much trouble; and many of them were caught and circumcised. Those who could escape, fled to *Travancore*. It was three years after the Company obtained possession of *Malabar*, before the *Alvangheri Tamburacul* would return to this his proper residence. The *Matam* is now rebuilt, and a throne is erecting for his seat. The Company allow 25,000 *Rupees* a year for the *Namburis* who officiate in the temples.

Nambuddies.

Every *Namburi* who stains his hand with blood ought to become an outcast; but an exception was made in favour of *Putter*, and his companions, who undertook to assassinate *Sholun Permal*, as I have already mentioned. Before he departed on this enterprize, the *Namburis* promised, that, in consideration of the laudable intention with which the deed was undertaken, the law should not be enforced against men who were acting for the good of a caste so favoured by the gods. After *Putter* and his companions, however, had murdered the unsuspecting prince, and had made their escape to the tank where the *Bráhmans* were performing their devotions, they became struck with horror, and, sitting down on the steps, exclaimed, "How can we with our bloody hands approach such pure beings!" The *Bráhmans* replied, that, in consequence of the promises which had been made, if they had come down they must have been received; but, as they had chosen to sit at a distance, conscious of their impurity, they must ever afterwards be considered as inferior to the *Namburis*. The descendants of these persons are to this day called *Nambuddy*, or *sitting on steps*, and are considered by the *Namburis* as not much higher in rank than *Rajas*, or other princes.

Dec. 16 *Tritalay*.

16th *December*.—I went to *Tritalay*, a small market (*Bazár*) of 40 or 50 houses, situated on the south bank of the river. It is inhabited by *Hindus*, brought by *Tippoo* from the country to the eastward, with a view of accommodating travellers by keeping shops. This is a business to which the original inhabitants of *Malayala* have a great dislike. The place is situated in the great route between *Pali-ghat* on one hand, and *Calicut* and *Panyani* on the other. It is, of course, a very great thoroughfare; but the roads are exceedingly bad, or, rather, there is no road whatever. The country through which I passed consists of innumerable low hills, divided from each other by narrow vallies, which indeed is the case almost every where in *Malayala*, or the *hilly country*.

17th *December*.—I remained at *Tritalay*, endeavouring to obtain an account of the agriculture and produce of the neighbourhood; but found a great difficulty from the fears of the natives, who consider every inquiry as being made with a view of increasing their burthens, and therefore wish to make their condition appear as poor as they can. **1800. Dec. 17. Fears of the natives.**

The most intelligent farmers here give me the following account of the weather. **Weather in *Malabar*.**

In *Cani* (14th September—14th October) they have strong winds from the westward, with a considerable quantity of rain, and much thunder.

In *Tulam* (15th October—13th November) the westerly winds generally continue; but the rains abate, and come once only in four or five days. They are accompanied by much thunder.

In *Vrichica* (14th November—12th December), or sometimes in *Tulam*, the winds change to the eastward, and blow strong through the *Ani-malaya* passage. Three or four times in the course of this month there comes heavy rain from the eastward. By the natives, the air is reckoned very cold. To my feelings, the days were very hot, but the nights cool and pleasant. The cool air of the night, however, is apt to produce, on those who sleep exposed to its influence, a disease named *Vatum*. In this, the legs are drawn up to the buttocks, and become stiff and emaciated; and if the patient escape with life, he never recovers the full use of his limbs. The disease, from the accounts of the natives, seems to be a violent rheumatism followed by palsy; I have, however, had no opportunity of tracing its progress.

In *Danu* (13th December—11th January) there are pretty strong winds from the south, and the air is still colder. These winds also produce the *Vatum*. All this month there are strong fogs and dews, but seldom rain.

In *Macara* (12th January—9th February) there is no rain, and less fog than before; but the dews continue heavy. The winds are easterly and strong, and the weather is cool. The *Jack* fruit, called *Chaca* by the natives (*Artocarpus integrifolia*), is ripe, which is about six weeks earlier than at *Calcutta*.

In *Cumbha* (10th February—11th March) there are very strong easterly winds, but no rain, and very slight dews. The weather begins to get hot. *Mangoes* are in season.

In *Mina* (12th March—10th April) there is very seldom any rain, and most of the rivulets become dry. The weather is hot, with slight breezes from the eastward. *Mangoes* continue in season.

In *Mayda* (11th April—11th May) the winds change to the westward, and there are four or five heavy showers, which are accompanied by thunder, and generally fall at night. The heat is great. This is the commencement of the ploughing season.

In *Ayduma*, or as it is also called *Vrishuppa* (12th May—11th June), the winds are westerly, and not strong. Moderate rains for

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the first half of the month, and these are sometimes accompanied by hail. The heat abates considerably. Toward the end of the month the rains become very heavy, and are accompanied by much thunder.

In *Maytuna* (12th June—13th July) the rains increase, with strong westerly winds, and much thunder: the heat is moderate.

In *Carcataca* (14th July—13th August) there is less thunder; but the westerly winds, and the rains, increase in violence. There is seldom a fair day, or even any considerable intermission from rain.

In *Singhium* (14th August—13th September) the rains and wind somewhat abate, and the thunder is moderate.

Parumba lands formed into terraces.

The low hills occupy a very large proportion of the country, and are clear from woods. Their sides are formed into terraces for the cultivation of hill-rice, *Ellu* (*Sesamum*), and *Shamay* (*Panicum miliare*, E. M.) The violence of the rain is such, that it would sweep away any thing which was sown on a sloping surface; and it is merely to prevent this, that the terraces have been formed. They are seldom so level, however, as to enable the cultivator to confine the rain, and inundate their surface. The whole that can be cultivated has been divided into terraces; but that in a very slovenly manner, very different indeed from the hills in China. From the same field a good crop can be had once only in five years. This kind of land is here called *Malaya*, or hill; and is partly the property of the government, and partly that of the landlords (*Jenmcars*). That belonging to government is cultivated by the neighbouring farmers, rent free; that belonging to the private landlords pays them one-fourth of the produce.

Produce and value of *Paddum* land.

Dhanmurry, or *Paddum*, or low land, besides the tax to government, pays to the proprietor from one to four *Porays* of rough rice for every *Poray-candum*. If a *Poray-candum* pay four *Porays* to the proprietor, it is called a four *Patom* land; if it pay three *Porays*, it is called three *Patom* land; and so on. The two highest kinds of land produce two crops in the year, the others produce only one. The land-tax is in the proportion of 1¼ *Vir'-Raya Fanam* for every *Patom* rent. Thus four *Patom-land* pays five *Fanams* land-tax, which is at the rate of 20*s.* 5*d.* an acre. The remainder left to the proprietor is at the rate of 16*s.* 3*d.* The worst land pays at the rate of one-fourth of the best. The people at first would not acknowledge that the best land produced more than ten *Porays* upon one *Poray-candum*; but, by putting a number of questions to them, of which they could not perceive the tendency, they were soon induced to confess, that they had concealed the truth. The common interest of money is 12 per cent. per annum; but as money lent on mortgage (*Canum*) is perfectly secure, four *Porays* of rough rice are reckoned an adequate interest for 100 *Vir'-Raya Fanams* advanced on mortgage. If the farmer (*Cudian*), therefore, as usual here, advance 100 *Fanams* on a *Poray-candum* of the best land, the interest of the money is equal to the rent (*Patom*), and the

landlord (*Jenmcar*) has no right to any thing, but a bunch of plantains, or some such trifle, as an acknowledgment of tenure: but it is customary, on account of the high rank of the landlord, for the farmer to give him, as a mark of respect, a small quantity of grain. On this account, on a *Poray-candum* of the best quality, eight-tenths of a *Poray* of rough rice are usually given. The farmer therefore gives for a *Poray* of land of the first quality as follows: 1800. Dec. 17.

		Porays.
For *Patom*, or rent	...	... 4
For *Negadi* 5 *Fanams* ...	worth...	7
For charges of collection ½ ditto...		
For present to the landlord	...	... $0\frac{8}{10}$
For seed of two crops	...	... 2
For slaves, labour, &c.	...	... 2
	Porays...	$15\frac{8}{10}$

Allowing that the mortgagee (*Canumcar*), on account of the goodness of the security, were willing to undertake the trouble of superintending the cultivation without reward, it is evident, that the produce of the two crops on the best land must be on an average $15\frac{8}{10}$ *Porays* on each *Poray-candum*. The people here, however, do not pretend to say, that the mortgagees have no farther profit; and, after having considered the foregoing statement, they acknowledged 10 *Porays* for the first crop, and 7 for the second, leaving a gain of $1\frac{2}{10}$ *Porays* of neat proceeds to the mortgagee for his trouble. If Mr. Drummond be right in his estimate of the extent of a *Poray-candum*, this will make the produce of an acre in the first crop 25 bushels, and in the second about 17 bushels; and on each crop will leave a profit to the mortgagee of about 1¼ bushel. Reasoning on the same *data*, which cannot well be erroneous, the produce of the one crop on the worst land must be $5\frac{6}{10}$ *Porays* from a *Poray-candum*, which will give about 13 bushels an acre. During *Tippoo's* government almost the whole of the landlords (*Jenmcars*) fled out of the province, and emigrated to avoid persecution. They have now returned, and are in nominal possession of their estates; but as most of these have been alienated on full mortgage (*Canum*), they receive but a very small share of the produce.

In this part of the country there are few coco-nut palms, the produce being too bulky for being carried to the sea side for exportation. The palms that are planted round the houses of the natives are chiefly *Betel-nut* (*Areca catechu*); and these are intermixed with *Jack*, *Mango*, orange, lime, and plantain trees. The ground that is applied to the raising of these plantations is the best of what is called *Parumba*; and, when a tenant (*Cudian*) pays the land-tax, and advances 25 *Fanams* on mortgage, for a *Poray-candum*, he is not expected to give any rent to the landlord (*Jenmcar*). A *Poray-candum* therefore of this land is worth to the landholder 1 *Poray* of rough rice a year, or about 2½ bushels an acre. Plantations.

1800 Dec. 18. Face of the country.

18th *December.*—After crossing the river about a mile above *Tritalay,* I went a long stage to *Cherupalchery,* which was the residence of the superintendant of the southern division of *Malabar,* while that office existed. Several good houses, or rather cottages, remain at the place as a monument, but there is no town nor shop. On this day's route the quantity of hill-ground is very great, and but a very small proportion of it is cultivated. Some of it has so gentle a slope, that it admits of being cultivated without being formed into terraces. To judge from the thickness of the grass, one would think that this ground was much more fertile than that of *Coimbetore.*

Tamuri Rajas.

Cherupalchery is situated in a district called *Nedunga nadu,* which formed a part of the *Tamuri Rájá's* dominions. The *Tamuri,* although of a caste inferior to the *Cochi Rájá,* and although possessed of less extensive dominions, was commonly reckoned of equal rank; which is said to have been owing to the superior prowess of his people. This produced a confidence in themselves, which, when *Hyder* invaded the country, proved ruinous. The *Cochi Raja* quietly submitted to pay a tribute, and still enjoys the government of his country; while the pride of the *Tamuri* refused any kind of submission to *Hyder,* and now he is reduced to a cypher, supported by the bounty of the Company. *Hyder* in person invaded the country, but was soon afterwards called away by a war in the dominions of *Arcot.* The *Rajas* embraced this opportunity, and, having repossessed themselves, held their lands for seven years. A *Bráhman* named *Chinavas Row* was then sent against them, and drove them into the dominions of *Travancore.* After nine years of his administration, an English army came, and took *Pali-ghat*; but, on the approach of *Tippoo,* was obliged to retreat by *Panyani.* The *Rajas* continued in exile until 1790; when, a little before the battle of *Tiruvana Angady,* they joined Colonel Hartly with 5000 *Nairs.* The second personage of the *Tamuri's* family now resides at *Carimporay,* a *Colgum,* or palace, that is situated west from *Cherupalchery,* on the banks of the river.

Invasion by *Hyder.*

No names of rivers in *Malabar.*

It must be observed, that in *Malabar* no river has any peculiar appellation; but each portion is called by the name of the most remarkable place near which it flows.

Another account of the weather.

A *Vaidika Bráhman* gives me the following account of the weather here, which may be compared with that of the farmers that I have before detailed. This account is taken from a *Sanskrit* work composed by the serpent *Subhramani,* and illustrated by a commentary of *Sankara Achárya.* The year is, as usual, divided into six *Ritus,* or seasons.

The first, containing *Macara* and *Cumbha* (12th January—11th March), is called *Sayshu Ritu.* In this the prevailing winds are easterly and northerly, and are not strong. There is no rain. The old leaves fall from the trees.

The second, containing *Mina* and *Mayda* (12th March—11th

May), is called *Vasanta Ritu*. The weather is hot, with light winds from the westward, and a few showers of rain. The new leaves come out on the trees. 1800. Dec. 17.

The third, containing *Ayduma* and *Maytuna* (12th May—13th July), is called *Grishma Ritu*. There are now thunder, wind, and rain; which, being all united together, though not very severe, make a great tumult in the air.

The fourth, containing *Carcataca* and *Singhium* (14th July—13th September), is called *Varsha Ritu*. In this, the thunder, wind, and rain are very severe.

The fifth, containing *Canni* and *Tulam* (14th September—13th November), is called *Sarat Ritu*. In this, rain comes both from the east and from the west. The winds are easterly.

The sixth, containing *Vrichica* and *Danu* (14th November—11th January), is called *Hemanta Ritu*. In this there are heavy dews, but no rain.

The first three *Ritus* form *Utrayana*; in which the day-winds are easterly, and the night-winds westerly; the latter of which are the strongest. The last three *Ritus* form *Dakshanayana*, in which the day-winds are westerly, and the night-winds easterly and the strongest. From this it would appear, that on shore the sea and land winds in some degree overcome even the violence of the monsoon; but at sea, near the coast, this is not observable during the strength of the south-west monsoon; at other seasons it is well known to seamen.

19th *December*.—I went about nine miles to *Angada-puram*, having crossed a fine little river, a branch of that which falls into the sea at *Panyani*. The low rice-fields seem to occupy but a small proportion of the country. The roads are very bad; but Mr. Wye, the collector, has lately obtained leave to lay out on their repair a small revenue, the produce of some ferries. Although the sum is small, yet it will have a considerable effect in a country where the soil is in general favourable, and where there are no carriages. In *Malabar* even cattle are little used for the transportation of goods, which are generally carried by porters. *Angada-puram*, by Europeans commonly written *Angrypar*, is at present a military station, the troops being in cantonments at some distance from the old fort. The situation is very pleasant, and many camp followers, and traders from *Coimbetore*, having settled shops (*Bazars*), have been the means of introducing many conveniences that are not commonly to be found in the inner parts of *Malabar*. Dec. 19. Roads.

20th and 21st *December*.—I remained with Mr. Wye, from whom, in making my inquiries, I received every possible attention and assistance. I have also received from him very satisfactory answers to the queries which I proposed in writing to the Commissioners, and of which I shall here avail myself. Dec. 20, 21.

Mr. Wye has the collection of four districts, namely *Bettuta-nada*, and *Parupa-nada*, on the sea coast: and *Vellater*, and *Shir-* Barren lands in Mr Wye's circle.

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nada, toward the *Ghats*. Of the last two districts, Mr. Wye thinks that one half is too steep, rocky, or barren for cultivation. He estimates a third of *Bettutanadu*, and a fourth of *Parupa-nada* to be of the same nature.

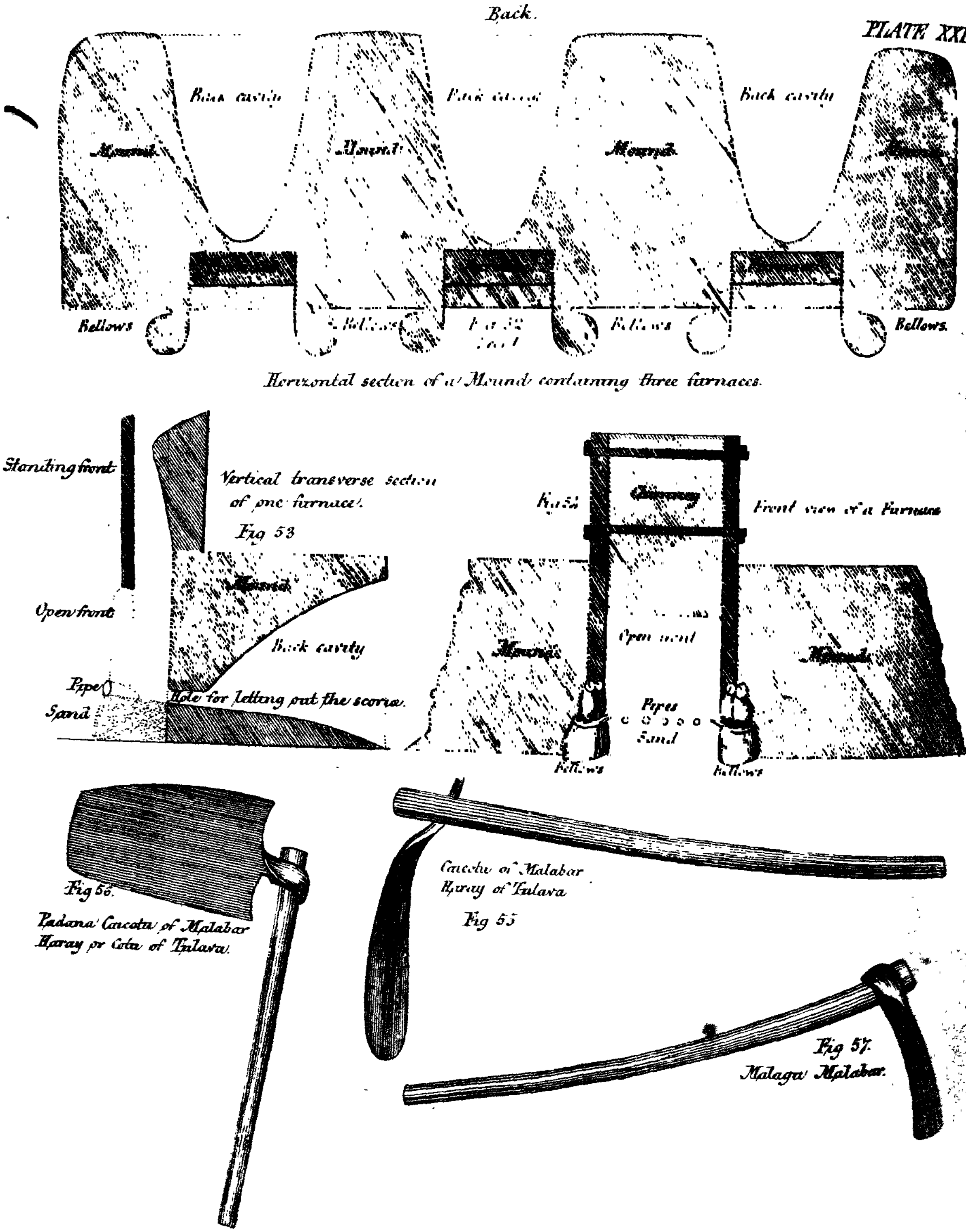
Hills between *Malabar* and *Coimbetore*.

Besides these districts, there is a tract of land occupying part of the mountains which separate *Malabar* from *Coimbetore*. The *Namburis* or *Nairs* had no authority over its inhabitants, who speak the language of *Karnata*. It is divided into two districts, *Attapadi*, and *Ayrata Cadawa*, each subject to a *Gauda*, or hereditary chief. The pass leading up to *Attapadi* goes by *Manar-ghat*, which was subject to the *Tamuri*, as chief of a district called *Nerunganada* ; and the pass leading up to *Ayrata Cadawa* was named *Cherumbil*, and subject to the *Rájá* of *Vellater*. Each *Raja* took advantage of the hill chief, who could only have access to the commerce of the low country through his dominions, and forced him to pay a tribute for permission to trade. This tribute, for both chiefs, amounts to 1000 *Rupees*. The manner in which these chiefs manage their country, or raise the revenue, is here totally unknown; as the natives seldom venture up to the hills, on account of the unhealthiness of their air. The *Cherumbil* pass was reckoned the best; but, owing to the disturbances prevailing in the country, it has of late been neglected, and is now overgrown with trees. It might be cleared at the expense of three or four hundred *Rupees*. From these hilly districts there are roads, that lead to *Dan'-Náyakana Cotay*, and *Coimbetore* ; and it would be of great importance to commerce to have these roads cleared, as also the passes which lead up from the *Irnada* district, in *Malabar*, to the southern parts of *Mysore*. For their respective productions, the two countries have a mutual demand, which at present is chiefly accommodated by the circuitous route of *Coimbetore*, and *Pali-ghat*; but, if direct roads were opened through the passes in the mountains, we might expect, says Mr. Wye, "that towns would spring up at the foot of every pass; that the customs would increase; and that small *Bazars* (towns containing shops), so much wanted, would be established on the different routes between the passes and the towns on the sea coast. The *Moplays* of the inland country, hitherto a most troublesome race of men, would, like their brethren on the sea coast, turn their attention to commerce, and procure a field of exertion for their restless spirit, which now so often interrupts the tranquillity of the country."

Forests.

The forests in every part of *Malabar* would appear to be private property. A person who wants to cut timber must first apply to the landlord (*Jenmcar*) for permission; which is granted in a writing called *Cuticanum*, in which is specified the price that is to be paid for each tree. This varies, according to the distance of the trees from water carriage, from two to eight *Fanams* for a *Teak* tree, from one to two *Fanams* for a *Viti*, or black-wood tree (*Pterocarpus*) and from one to four *Fanams* for an *Aiony* tree (*Artocarpus hirsuta, En. Meth.*): these are the only trees for which the landlords

PLATE XXI.


Back.
Back cavity
Mound
Bellows
Horizontal section of a Mound containing three furnaces.
Standing front
Vertical transverse section of one furnace.
Fig 53
Mound
Open front
Back cavity
Pipe
Sand
Hole for letting out the scoria.
Chimney
Front view of a Furnace
Mound
Open front
Pipes
Sand
Bellows
Fig 56.
Padana Cacota of Malabar
Haray or Cota of Tulava.
Cucolu of Malabar
Haray of Tulava
Fig 55
Fig 57.
Malaga Malabar.

demand a price; but there are two others reckoned valuable; the *Vayntayca*, which resists the white ant; and the *Trimbucum*, an iron-wood, which belongs to the genus that Dr. Roxburgh in his MSS. calls *Hopea*. After the bargain has been made, a small advance is given, and the wood-cutter goes and fells whatever trees he wants. When he is ready to take them away, he informs the landlord, who numbers those that have been cut, and before he allows one to be moved, receives the full value. The quantity of *Teak* trees annually produced in this circle does not, in Mr. Wye's opinion, exceed a hundred. This valuable tree grows chiefly about *Manar-ghat*, and is therefore too remote from a navigable river to be carried for a market to the sea coast. 1800. Dec. 20, 21.

No lac nor sandal-wood is produced in the hills of *Malabar*; at least, the few trees of sandal that may be found are devoid of smell.

In *Vellater* there are 34 forges for smelting iron. In company with Mr. Wye, I examined one of these belonging to a very active and sensible *Moplay*, who was anxious for improvement in his profession, and took great pains to show us every part of the process, with a laudable desire of obtaining advice to enable him to improve defects. These are indeed very numerous; and his process is less complete than even that used in *Coimbetore*, which is chiefly owing to the defects of the bellows; for the furnace is much better. Iron mines.

In all the hills of the country the ore is found forming beds, veins, or detached masses, in the *stratum* of indurated clay that is to be afterwards described, and of which the greater part of the hills of *Malabar* consists. This ore is composed of clay, quartz in form of sand, and of the common black iron sand. This mixture forms small angular nodules closely compacted together, and very friable. It is dug out with a pick-ax, and broken into powder with the same instrument. It is then washed in a wooden trough, about four feet in length, open at both ends, and placed in the current of a rivulet; so that a gentle stream of water runs constantly through it. The powdered ore is placed in the upper end of this trough; and as the water passes through the heap, a man continually stirs it about with his hand. The metallic sand remains in the upper end of the trough, the quartz is carried to the lower end, and the clay is suspended in the water, and washed entirely away. The *Moplay* in general collects the ore by means of his own slaves. At other times, he buys it ready washed for the furnace; and then what he puts in one furnace costs him 10 *Fanams*. Each smelting requires 2160 lb; the price, therefore, is not quite 3½*d.* the hundred-weight. In this ore the quantity of metallic sand is small, in comparison with that of the earthy matter. Ore.

Under the same roof are built two or three furnaces, of which the description will be rendered more intelligible by means of the sketches annexed, Plate XXI. Figures 52, 53, 54. The furnaces are excavated out of the front of a mound of clay, which is 4 feet high Furnace.

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behind, and 5 feet four inches before; and about 7 feet wide, from front to back. The excavation made for each furnace is 2 feet 11 inches wide, and 2 feet deep; and is dug down from the top of the mound to the ground. From behind, opposite to each furnace, an arched cavity is dug into the mound; so as to leave a thin partition between the two excavations. For allowing the vitrified matter to run off, there is in this partition a hole one foot in diameter. Above the furnace is erected a chimney of clay, built with four plain sides, which in two different places is strengthened by four *Bamboos*, lashed together at the angles. The front of the chimney consists of baked clay, two inches in thickness. Behind, the clay is gradually thickened toward the summit; so that the upper mouth of the chimney is contracted to 8 inches in depth by 2 feet 11 inches in width. The front of the furnace is quite open.

Smelting.

Early in the morning, when going to smelt, the workmen put wet sand mixed with powdered charcoal into the bottom of the furnace; so as to fill it up as far as the hole in its back part, through which the vitrified matter is to run out. The sand and charcoal are well beaten, and formed so as to slope from the outer and upper edge, both toward the hole and toward the ground in front of the furnace. The hole is then well stopped with clay; and clay pipes are inserted at each corner of the furnace, for the reception of the muzzles of the bellows. A row of clay pipes, eight or ten in number, is then laid on the surface of the sand, at right angles to the back of the furnace. Their outer ends project a little beyond the front, and their inner ends reach about half way to the back. The front of the furnace is then shut up with moist clay; and stoppers of the same are put in the outer mouths of the pipes. By removing these stoppers, and looking through the pipes, the workmen judge how the operation is going forward. Ten baskets of charcoal, each weighing 63 lb., are then poured in by the chimney; and this having been kindled, the bellows are set to work. Then 16 *Porays* of prepared ore, weighing 2160 lb., and 20 baskets more of charcoal, as the fire makes room for them, are gradually added. The operation lasts 24 hours, two sets of men relieving each other at the bellows, and keeping up a constant blast. The principal workman who attends the fire adds the fewel and ore, and stops up breaches; and, when the mass of iron has formed, breaks the clay that shut up the hole in the back part of the furnace, and lets out much vitrified matter, that strongly resembles brown *hœmatites*, and no doubt contains much iron, which this imperfect operation is unable to reduce. The bellows are then removed, and the front of the furnace is broken down. A great part of the charcoal which has not been consumed is then pulled out with sticks or forks, and extinguished by water. The mass of iron is allowed to remain on the sand 24 hours, and to cool gradually. According to the success of the operation, it weighs from 8 to 12 *Tolams*, or from 256 to 384 lb. The mass, when cool, is broken in pieces with a large

hammer, and sold for use, it being then malleable, although somewhat brittle. The mass is extremely porous, and irregular in its shape, and has never formed what chemists call a button; that is to say, the liquefaction produced on the iron has only been partial, sufficient to cause the particles to adhere in a mass, but not adequate to form a fluid that expels all matters of a different specific gravity. In fact, the mass, in its cavities, includes many pieces of charcoal enveloped by the iron. How these have not been consumed, I do not know; but this circumstance clearly shows, that combustible matter being contained in a *stratum* is no proof that the particles of this have not been united by a fire capable of mollifying them, and of making them cohere. 1800. Dec. 20, 21.

Want of proper bellows.

I have already mentioned, that this process obtains only from $11\frac{8}{10}$ to $17\frac{8}{10}$ per cent. of iron from the ore, and that what is produced is very imperfect. The great defect in the process, that renders it so unproductive, seems to be the want of proper bellows. Each man works a pair, consisting of two cylindrical leather bags, about 18 inches high, and 9 inches in diameter. The top has a slit, the edges of which overlap, and serve as a valve. Each pair is placed, on a small platform of clay, at a corner of the furnace; and a man, taking hold of the outer flaps of their upper ends in his two hands, alternately pushes them down to expel the wind, and draws them up to get a supply of air, the one hand going up while the other goes down. The air is expelled through a muzzle common to both bags. Each furnace has two pairs, which at the same time requires two men, and there must be two sets, one to relieve the other.

Expenses and profits of the smelting.

To the proprietor the profit of these works is considerable. The expense for each smelting is as follows:

	Fanams.	*Poray.*	*Edangallies.*
Each bellowsman 1 *Fanam*, and $\frac{1}{10}$ *Poray* of rice.	4	0	4
The head workman.	2	0	1
The hammerman...	1	0	1
Charcoal	10	0	0
Ore..	10	0	0
Fanams... ...	27	0	6
Value of 6 *Edangallies* of rice	0½	0	0
	27½	0	6

The iron sells at 4 *Fanams* a *Tolam*, or 7*s*. 7¾*d*. a hundredweight. When the operation is well performed, and the iron mass weighs 12 *Tolams*, the proprietor has 20½ *Fanams* profit; and at the worst, when he gets 8 *Tolams* only, his profit is 4½ *Fanams*.

The expense of implements and buildings, owing to their wretchedness, cannot be estimated at more than 50 *Fanams* a year; and neither the government nor the landlord demand any thing for fewel.

1800 Dec. 20, 21. Laterite

What I have called indurated clay is not the mineral so called by Mr. Kirwan, who has not described this of which I am now writing. It seems to be the *Argilla lapidea* of Wallerius I. 395, and is one of the most valuable materials for building. It is diffused in immense masses, without any appearance of stratification, and is placed over the granite that forms the basis of *Malayala*. It is full of cavities and pores, and contains a very large quantity of iron in the form of red and yellow ochres. In the mass, while excluded from the air, it is so soft, that any iron instrument readily cuts it, and is dug up in square masses with a pick-ax, and immediately cut into the shape wanted with a trowel, or large knife. It very soon after becomes as hard as brick, and resists the air and water much better than any bricks that I have seen in India. I have never observed any animal or vegetable *exuvia* contained in it, but I have heard that such have been found immersed in its substance. As it is usually cut into the form of bricks for building, in several of the native dialects, it is called the brick-stone (*Itica cullu*). Where, however, by the washing away of the soil, part of it has been exposed to the air, and has hardened into a rock, its colour becomes black, and its pores and inequalities give it a kind of resemblance to the skin of a person affected with cutaneous disorders; hence in the *Tamul* language it is called *Shuri cull*, or itch-stone. The most proper English name would be *Laterite*, from *Lateritis*, the appellation that may be given to it in science.

Gold dust.

In the *Irnada* district, gold dust is collected in the river which passes *Nelambur* in the *Mangery Taluc*. A *Nair* has an exclusive privilege of the collection, and on that account pays a small annual tribute. I was very desirous to have visited the place; but, the district being in extreme confusion, I could not with prudence enter it, especially on such an errand. The *Nelambur* river is a branch of that which falls into the sea north from *Parupa-nada*.

Population.

Mr. Wye gives the following account of the population and stock of his district:

Houses inhabited by Mussulmans	12,581
Ditto by *Namburis*	297
Ditto by *Puttar Bráhmans*	44
Ditto by the families of *Rájas*	33
Ditto by *Nairs*	6,747
Ditto by *Tiars*	4,733
Ditto by *Mucuas*	608
Ditto by people from the country to the eastward.	472
Total	25,515.

*It is evident, that Mr. Wye has not given the total number of houses, but only the total of those inhabited by the principal castes to which my queries referred. I imagine, that we may take the total number of houses to be, at least, 28,000. These, at the rate of

population in *Canara*, will contain 146,800 persons; but Mr. Barber's estimate will reduce this number to 103,900. 1800. Dec. 20, 21.

The number of slaves are,

Males..	8,547
Females..	7,654
Total......	16,201
Add free persons by first estimate............	146,800
Total population by first estimate..............	163,001
Total population by Mr. Barber's ditto......	120,101

Stock.

Cows..		17,331
Oxen, large.........................	2,068	
small...........................	25,428	
		27,496
Total animals of the cow-kind.........		44,827

Animals of the buffalo kind 8,900.
Number of ploughs 18,000.
Number of looms 329.

From the number of ploughs, which is not likely to be exaggerated, there can be little doubt that the native officers have concealed from Mr. Wye the real number of cattle. 18,000 ploughs require at least 36,000 oxen or buffaloes, to which must be added the young of both species, the cows, and the cattle employed for carriage and in mills. The returns of cattle made to Mr. Warden are apparently correct; and at their rate 18,000 ploughs would require 66,840, in place of 53,727 given by Mr. Wye.

The *Dhanmurry*, *Puddum*, or low land, in Mr. Wye's circle is stated, in the revenue accompts, at 170,400 *Porays*; of which, in the two districts nearest the *Ghats*, 3,500 were last year waste. Many parts of the districts near the sea, and near the rivers in *Shirnada*, are, in the rainy season, very liable to suffer by being overflooded. In the last rainy season many people were obliged, once or twice over, to transplant their *Macara* crop. In the last mentioned district, owing to an embankment having given way, some low land has been deserted, and is now overgrown with bushes. In the interior part of the country, there are large tracts which have been over-run with high grass and trees since they have been deserted by their inhabitants, owing to the persecutions of the *Hindus* by the late *Sultan*, and the subsequent depredations committed on the *Nairs* by the *Moplays*. These atrocities raged most violently in the *Malabar* years 970—974; and were somewhat checked two years ago by the vigorous justice of Mr. Waddel, then superintendant of the southern division; but in the country immediately north from *Angada-puram*, they have again commenced. Rice land extent

The ground called 166,900 *Poray-candums*, stated in Mr. Wye's account to have been cultivated, can have no reference to the quanti-

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ty of seed, which Mr. Smee estimates at 472,113 *Porays*: allowing one half to produce two crops in the year, the *Poray-candums* must at this rate be 314,742; but this would be only 17 *Poray-candums* for each plough to cultivate; whereas, by the account of the farmers at *Pali-ghat*, a plough ought to cultivate 40 *Poray-candums*. Whether the number of ploughs have been exaggerated, or whether, owing to the commotions in *Vellater*, Mr. Smee was prevented from surveying the whole district, I cannot say; but it is evident that there is some error. The produce of the districts, as stated by Mr. Smee, cannot be well reconciled with the population, taken at the lowest estimate. Mr. Smee calculates the gross average produce of rice in these districts, deducting seed, at 2,928,751 *Porays;* but 120,000 inhabitants would require 4,180,000 at the rate which I allowed in *Pali-ghat*. The exportation of these districts is not considerable; but we must either allow, that the number of inhabitants and ploughs is greatly exaggerated, or that Mr. Smee's survey did not extend to the whole of Mr. Wye's district. I am indeed inclined to think this last to be case.

Value of rice estates.

With regard to the *Porays* of land mentioned in the revenue accompts, a most fallacious opinion has been entertained, that they are so much land as will sow a *Poray* of seed, and this is defined to be 32 cubits square, which is still smaller than the allowance made by Mr. Warden. The fact at *Angada-puram* is, that, when the assessment was made by *Arshid-Beg-Khan*, so much land, good or bad, was called a *Poray* of land, as was supposed to produce to the landlord (*Jenmcar*) 10 *Porays* of *Vir'-Patom*, or of neat rent. The tax imposed on this was 5 *Fanams*, which, at harvest, is nearly the value of the whole rent; so that, unless the proprietor reserved the grain for a favorable market, he had no profit left him from his rice-lands. This, the people say, has been actually the case; but as people are still willing to advance money in mortgage on rice-lands, we may safely conclude, that *Hyder* did not so far deviate from his usual policy and justice, as to lay on a tax that would entirely absorb the property of the subject. It is true, that the inhabitants of *Malabar* speak of *Hyder* as of a rapacious tyrant; but little attention can be paid to what such people say, as they are universally discontented with the government of the English, by whom they have been indulged like sick children. To illustrate the matter more fully, let us consider what is usually done, according to the acknowledgment of the natives. For the mortgage of what is in the revenue accompts called ten *Poray* land, and of what among the proprietors is called a hundred *Patoms*, being estimated to produce 100 *Porays* of rack-rent (*Vir'-Patom*), a man, who has money is willing to advance on mortgage bond (*Cánum*) 300 *Fanams*; and, after deducting the interest, to allow the landlord one-fifth of the rent (*Patom*). The mortgagee pays the land-tax; and for the trouble of cultivation, should he not occupy the land himself, allows the farmer a certain fixed amount in grain. This allowance is as follows:

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	Porays.
For seed...	20
For cattle, implements, and slaves ...	60
For neat profit to the farmer	20
Porays...	100

From this it is evident, that what in the revenue accompts is called a *ten-Poray-land*, on an average actually sows 20 *Porays*, although the whole cannot be land that produces two crops. After deducting the 100 *Porays* given to the farmer, it is supposed that an equal quantity remains to the mortgagee; but, if we consider what he has to pay, we must allow him more.

	Porays.
The natives allow 5 *Porays* for the interest of 100 *Fanams*; so the interest of the bond is...	15
Land-tax 5 *Fanams*, with ten per cent. collector's charges = 5, all together 55 *Fanams*, worth	110
One-fifth of rent, deducting interest	17
Total to be paid by the mortgagee ...	142
Farmer's allowances...	100
Porays...	242

We may safely assert therefore, that in both crops, the average produce of what, in the revenue accompts, is called a *ten-Poray-land*, is at least 242 *Porays*; otherwise nobody would be willing to advance money on mortgage. Perhaps somewhat might be added for the trouble of the mortgagees (*Canumcars*); but, considering that they have perfect security for their money, and that, as most of them cultivate the ground themselves, they have the large profits allowed here for the *Cudian*, or cultivator, I am inclined to think, that nothing ought to be added on that account. Mr. Smee's estimate of the average produce of this district is $7\frac{5}{8}$ seeds for one: at this rate, the 242 *Porays*, which make the produce of what is called a *ten-Poray-land*, will in fact be the produce of about 31 *Porays* sowing.

Land-tax. After the first invasion of *Malabar* by *Hyder*, an attempt was made, by *Chinavas Row*, to introduce a regular system of finance; but this could never be carried into execution. The present system was some time afterwards introduced by *Arshid-Beg-Khan*. All the vigilance of this commander, and of his master, were certainly inadequate to prevent unjust inequalities in the original assessment; and there cannot be a doubt, that many landlords (*Jenmcars*) who chose to corrupt the officers of revenue had their lands valued at a low rate, and the deficiency which this occasioned was made up by valuing high the lands of those who were too poor, or too proud, to corrupt the assessors. *Tippoo* having heard frequent complaints of this, and having been misled by the improper use of the term *Poray-land*, which he conceived to signify, in the revenue accompts,

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a quantity of land capable of sowing a *Poray* of seed, endeavoured to equalize the tax by a measurement, conducted by *Ram Lingam Pillay*, who had previously ascertained the average extent of ground sown with one *Poray*. This made the matter infinitely worse; as his officers were much more liable to corruption than those of his father; for he was very lenient to such offenders.

Division of rice-lands. *Ubayum*.

In *Vellater* there are a few spots of land, watered by perennial streams, that annually produce three crops of rice. The greater part of the vallies give two crops: the first by means of the rain in the south-west monsoon; and the second by means of the easterly rains, and of the small streams which wind through the vallies, and are forced out upon the low grounds by means of dams. About the end of January, these streams dry up, but the supply of water is sufficient to bring the second crop to maturity. The lower parts of the vallies are called *Ubayum* lands; but the whole does not produce two crops. This terms signifies perfectly level ground; and in some places the water lies so deep on it, that one crop only can be procured.

Palealil.

The higher borders of the vallies, which are too much elevated to receive a supply of water from the rivulets, but which are sufficiently level to admit of being inundated in the rainy season, are called *Palealil*, and annually produce only one crop. Mr. Wye thinks that the quantity of this does not amount to more than a twentieth part of the *Dhanmurry*, or rice-ground. The land which is higher than that called *Palealil* is *Pa um*, and in this neighbourhood pays no land-tax.

Different methods of cultivation.

The three usual modes of cultivating rice are here in use. When the seed is sown without preparation, the cultivation is called *Podiwetha*, i. e., dry-sowing; when, before sowing, it is sprouted, it is called wet-sowing, or *Chetu-wetha*; and when it is transplanted, it is called *Nearra*.

Different crops.

From the months in which the crops ripen the first is called *Canni*, and the second *Macara*. The first is the most productive, in a proportion of 3 to 2; but, owing to its being cut in the rainy season, the grain is often injured.

Wet-sowing in *Palealil*.

In the *Palealil*, or higher parts of the level land, the most common cultivation is the sprouted seed. When, however, any fields of the *Ubayum* or low-land come up thin, the young rice is pulled up, and transplanted into a *Palealil* field; and there still remains time for having two crops on the former. On *Palealil* land the following kinds of rice are cultivated.

Navara ...	a 2½	months' crop. Average produce,	5 seeds
Watun ...	4	... ...	7 or 8
Calii ...	4	... ...	7 or 8
Caruma ...	3½	... ...	7
Ari-Modun	3	... ...	7
Tua Punarin	4	... ...	7
Cheru Modun	3	... ...	7
Ari Caruma	3	... ...	5

The average produce of this land may therefore be taken at $6\frac{625}{1000}$ seeds. If one *Poray-candum* measure only 32 cubits square, then the seed for an acre will be above 6 bushels, and the produce 32 ⁴ bushels. I am inclined, however, to think that the *Poray-candum* is larger. The expenses of cultivation, and farmers' (*Cudians*) profit, amount on this land to two-thirds of the produce, leaving one-third to the landholder and government.

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Manner of conducting the crop.

The following is the manner of cultivating *Palealil*, or the higher parts of the level land, with sprouted-seed. Between the 2d and 11th of June plough twice while the field is dry, and afterwards inundate the ground, which in the course of the following month must be ploughed eight times, the plough going over the field, at each time, first length-wise, and then across. The field is all the while kept inundated, and before the fourth or fifth ploughing is manured with leaves and twigs. After the eighth ploughing the dung is given, and ploughed down. The mud is then smoothed with the feet; and about the 13th of July, the prepared seed is sown, the water being two or three inches deep. In twenty or thirty days the weeds must be removed by the hand. It ripens without any farther trouble than confining the water to the proper depth. The ears only are cut off; and, the rain making it impossible to preserve the straw for fodder, the cattle are allowed to eat it on the ground. The seed is made to sprout by putting it in baskets, and wetting it with water. Thrice a day afterwards, for from four to six days, it is watered, and is then fit for use.

Ubayum land producing two crops.

On the *Ubayum*, or low level land, the first, or *Canni* crop, is in general sown in the same manner as on the fields called *Palealil*; only the season commences somewhat earlier, as the lowness of the situation affords a better supply of water. When the ears have been removed, the straw is immediately ploughed in for the second crop, which is always transplanted. For this the field is ploughed five or six times. If the farmer be not pushed for time, he allows for this operation from ten to twenty days; but, if the season be nearly over, he completes it in less than a week. After the second ploughing, the field is manured with leaves; and after the last with dung, which is ploughed in, and the seedlings are transplanted, the mud having been previously smoothed by the *Uricha Maram* (Plate XIX. Fig. 46). The fields are always kept inundated, and require no weeding. The straw of this crop is cut down close by the ground, and kept four days in a heap. The grain is then rubbed off with the feet; for the *Hindus*, on such occasions, make as much use of their feet as we do of our hands. Twenty days afterwards the straw is beaten with sticks, and gives some more grain of an inferior quality. The seedlings are raised on a piece of high ground allowed for the purpose, and which pays no tax. Between the 14th of August and the 13th of September this is ploughed four of five times in the course of eight days, the field being in general inundated; this practice, however, is not always followed. The field is manured

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with leaves and dung; and the seed, after it has been prepared so as to sprout, is sown very thick. It seldom gets any water, except the rain, and before it is transplanted is often very nearly dead. Before the seedlings are pulled, the field must be well watered. After one month and a half, they are fit for transplantation, and continue in that state for fifteen days. The produce of good *Ubayum* land is reckoned twelve seeds for the first crop, and eight for the second, in all twenty seeds; which, should one *Poray* of seed require only 32 cubits square, would make the produce of the two crops on an acre 123 bushels.

Ubayum land producing one crop.

In the *Ubayum* land, which, owing to too great a depth of water, produces only one crop, a particular kind of rice called *Cuttaden* is cultivated. To ripen it requires seven months, and its harvest is *Macara* (12th January—9th February) It is always transplanted, and in good seasons gives 15 seeds, which will make the produce of an acre 62¼ bushels, if 32 cubits square sow a *Poray* of seed.

Kinds of rice cultivated on *Ubayum* land.

The kinds of rice cultivated on *Ubayum* ground for the *Canni*, or early crop, are,

Walli Arien	a 6 months crop.	
Cheru Arien...	5½	ditto.
Ayduma Cari	5	ditto.
Curtipun Arien	4	ditto.

For the *Macara*, or late crop.

Cumbalum.	a 6 months crop.	
Mundium pala	5½	ditto.
Tecun.	4	ditto.
Bembala.	4	ditto.

The kind of rice must be adapted to the soil. On *Ubayum* land nothing but rice is ever cultivated.

Parumba.

In Mr. Wye's district, no estimate has been formed of the extent of the *Parumba*, or hilly lands. The lower parts of the hills bordering on the rice fields are occupied by the houses of the natives; these are surrounded by gardens, in which are planted fruit trees; and among them many different small articles, such as *Shamay* (*Panicum miliare*), *Pyro* (legumes), turmeric, and ginger, are raised. The higher parts, not too steep or rocky, are converted into terraces, or might be so; and, according to their fertility, are once in three, four, or five years cultivated for hill-rice, and *Gingely* (*Sesamum*). In the eastern parts of *Veilater*, a great extent of this kind of ground has been allowed to be over-run with bushes and long grass; and Mr. Wye does not suppose that it would repay the expense of clearing. He thinks that on this kind of ground the culture of cotton might be introduced, by furnishing the collectors with seed to distribute. He thinks that the Company might show an example, by cultivating a small spot in each district, to initiate the natives in the manner in which new articles might be managed. The expense would be trifling. He thinks that, if the natives knew how to cultivate them, *Sholum* (*Holcus sorghum*), *Dhal* (*Cytisus*

Introduction of cotton.

cajan), *Coolty* (*Dolichos biflorus*), and other dry grains, might be reared. I saw a field which Mr. Wye had sown with hill-rice mixed with *Bourbon* cotton seed. The crop of rice had been very good; but, owing to his absence at the time, the weeds had been allowed to choke many of the cotton plants. Such of them as had struggled through were very thriving and productive. There can be no doubt but that in this manner a very good crop of cotton might be obtained, if pains were taken, after the rice has been cut, to keep down the weeds by ploughing or hoeing. I have, however, some doubt, whether the cotton crop would equal in value that of *Sesamum*, which now always follows the hill-rice. Although the whole of the *Parum*, or hilly land, is private property, no one here prevents the cattle of his neighbours from feeding on his ground, or any person that pleases from cutting grass. The people of the country say, that it is customary for the landlords to grant hill land, free of rent for six years, to any person who will clear away the trees or bushes, and form terraces. Afterwards, when cultivated, it pays a rent to the landlord, but no land-tax has been exacted. The best soil on these hills is a red clay, like the soil used for *Ragy* in *Mysore*. *Ellu* or *Sesamum* is always sown immediately after the hill-rice has been reaped; but, as this second crop is precarious, some fields are sown with *Ellu* alone. 1800. Dec. 20 21.

For the *Modun*, or hill-rice, the *Parum* is ploughed three or four times between the 14th of July and the 13th of August. Afterwards, for eight times, it is ploughed once a month. Between the 11th of April and the 11th of May it is ploughed four or five times, and before the last is manured with ashes and dung. At the end of this period, the seed unprepared is sown broad-cast, and covered with the plough. When the rice is about a foot high the weeds ought to be removed by the hand; but in general this is much neglected. In ninety days it is ripe. The ears are then cut, and the straw is immediately ploughed down for *Sesamum*. Hill-rice.

The field, after the rice harvest, is ploughed eight or ten times, and before the last is manured. Between the 14th of August and the 13th of September, the *Ellu* seed is sown, and covered with the plough. It ripens in four months. *Sesamum*.

This land is never alienated on mortgage but pays to the landlord what is called *Warrum*, or rent. Before either crop is reaped, its amount is estimated, and the cultivator pays a certain share to the landlords. These consider themselves as entitled to a fifth part of the gross produce; but, in fact, a great many of the cultivators being Mussulmans, they will seldom give more than a tenth. The hill-rice is an extremely precarious crop, and five seeds are reckoned a good return; but this, if Mr. Wye be right in calling 32 cubits square a *Poray-candum*, is 30 bushels an acre; and as this rice comes in when that article is scarce and dear, it sells very high. One-sixtieth of a *Poray* of *Ellu* seed is required for a *Poray-candum*, and 24 seeds is a good crop; which makes the produce $2\frac{1}{10}$ bushels an acre. Tenure and value of hill-land.

1800. Dec. 20, 21. *Shamay, or Panicum miliare.*

The *Shamay* is sown in the plantations, or in the ground that serves for raising the seedlings of rice for transplantation. This requires four or five ploughings. The seed is sown about the beginning of May, and is covered by having bushes drawn over the field. There is no regular *Warrum* or rent for *Shamay*, but the landlord always gets some share. It ripens in 60 days, and produces very little; but it is ripe at a season when grain is always scarce and dear, and keeps the cultivators alive until the rice harvest.

Improvidence of the natives of *Malabar*.

The people of *Malabar* are indeed very improvident. As soon the rice harvest is over, in order to drink and feast, they sell off their grain at a very low rate; and seven or eight months afterwards their stores are commonly exhausted, the price of rice is doubled, and they are reduced to eat many things which, while rice was in plenty, they would not taste.

Plantations.

The ground for plantations of palms, fruit trees, pepper, *Betel-leaf*, &c., must be free of rocks, and near a supply of water. It pays no land-tax; but a tax has been imposed on some of the articles that it produces. When a man wants to make a new plantation, he applies to some landlord, and gets, upon a land called *Cuey Canum*, a piece of ground fit for the purpose. According to the size of the garden, he advances from 30 to 50 *Fanams*, forms the plantation at his sole expense; and for two years after the garden or plantation becomes productive, in order to reward him for his trouble, he receives the whole profits. Afterwards he continues to cultivate the garden; and for his trouble, and for the interest of the money advanced to the landlord, and expended in forming the plantation, he receives one half of the produce. At any time, by paying up the money advanced, and the value of the trees planted, the landlord may entirely reassume the plantation. The value of the tree is fixed by long custom, and must be very nearly the real expense incurred in bringing them to maturity; otherwise no man would be so foolish as to advance money, or form plantations, on the tenure called *Cuey Canum*. A *Betel-nut* palm (*Areca*) is valued at three-tenths of a *Poray* of rice, worth about half a *Fanam*; a *Jack* tree (*Artocarpus integrifolia*) is valued at 8 *Fanams*; a coco-nut palm (*Cocos*) at 16 *Fanams*; a tree covered with pepper vines at 5 *Fanams*. These *Fanams* are the old *Vir'-Ráya Fanams*, worth ¼ *Rupee*, or about 6*d*.

Negadi, or tax.

Before the Mussulman invasion, these gardens were to the landlords a very valuable property; but, when a tax was laid on, it was supposed to exhaust almost the whole of the landlord's share; and, where the garden is held by the tenure called *Cuey Canum*, he gets only from one to three *Fanams* yearly from the *Canumcar*, who pays the taxes. The plantations in *Vellater* are on the decrease, which, like all other evils in *Malabar*, is usually attributed to the taxes, but it seems to me without justice. In the other districts under Mr. Wye, the plantations are increasing, and there is no reason

to suppose that the tax is more oppressive in the one than in the other. Besides, although the tax, no doubt, bore excessively hard on the landlords, and may have nearly annihilated their property, as is alleged, it is not asserted, that it has infringed on the share of the persons possessing by the tenure called *Cuey Canum*; and it is by that class of people alone that gardens have been formed, and by them that they are most commonly kept in repair. But the oppression of the former government, and the turbulence and disorder that have prevailed in *Vellater* since it fell under the Company's management, are quite sufficient to account for the destruction of the plantations. 1800. Dec. 20, 21.

Produce of gardens

The trees most commonly planted in *Vellater* are, the *Betel-nut* (*Areca*), and *Jack* (*Artocarpus integrifolia*). *Betel-leaf* (*Piper Betle*) is raised in a greater quantity than is consumed in the country; but it is all in the small way; every garden has eight or ten vines, for which the occupant pays nothing. Here are also many of the palms called by the natives *Erimpanna*, the *Caryota urens* of Linnæus. Its leaves are the favourite food of the elephant; and the palm wine most commonly used here is extracted from its young *spadix*, or flowering shoot. The *Jagory* prepared from this juice is inferior to that which is prepared from the juice of the coco-nut, but superior to the *Jagory* of the *Brab*, or *Borassus*. The natives, however, for drinking, greatly prefer the palm-wine of the coco-nut tree but it is expensive. The seeds of the *Erimpanna* are planted, but it pays no tax. In general, it pushes out only one *spadix* annually; but that is so productive, that the *Tiars* pay yearly a *Fanam* for liberty to extract the juice of each palm. When this is old, and has become unfit for producing juice, it is cut; and the heart of the upper quarter of the stem is converted into a kind of sago, which the poor eat in the scarce season. This heart is divided into small pieces, and is exposed for five or six days to the sun. The pieces are then beaten in a large wooden mortar, like that used for removing the husks of rice. By this method a powder is separated from the stringy part. This powder is dried for another day in the sun; and in the evening, to separate some remaining strings, it is again beaten. From one tree, about a *Poray* of clean powder, or of very coarse sago, is procured. This having been washed in water, and the larger part of the water having been poured off, it is boiled with the remainder into a kind of pudding, which is eaten with salt and *tyre*, or milk curdled by having become sour.

Erimpanna or *Caryota urens.*

Black pepper.

Mr. Wye says, that in the southern division of *Malabar*, the cultivation of black pepper (*Piper nigrum*), owing to *Tippoo's* having destroyed the vines, is much less than it formerly was; but it is still considerable, and may produce 800 *Candies* of 640 lb. each, and worth at least 100,000 *Rupees*. All the gardens are small, and all the cultivators have other property. In June, July, or August, the traders go round to the cultivators, and advance them money, on condition, that in January or February the cultivators shall deliver

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their pepper at a given place. The money advanced is in proportion to the wants of the cultivator. If he be pressed for money, not above two-thirds of the value will be given. In other cases, where the cultivator is not so necessitous, the money advanced is nearer the true value of the pepper. The condition of the bargain is also such, that, if the cultivator does not deliver the stipulated quantity of pepper, he must pay for the deficiency at the *Calicut* price, which is considerably greater than the common rate of the interior parts of the province. The advance is frequently made in cloth or other goods; but most commonly in old *Fanams*, worth ¼ *Rupee*. There are, however, several men, chiefly of the *Moplay* caste, who are prudent enough to be able to wait for their money until the produce of their gardens is ready for delivery. These, in general, let their gardens on *Vir'-Patom*, where the cultivator is in fact nothing more than a superintendant for the proprietor, who furnishes every expense, and allows a small percentage on the produce for the support of the tenant. The traders who make the advances to the farmers are mere factors for the merchants residing in the great towns, who furnish them with goods and cash to make the advances, and who have them in as great subjection as they have the inconsiderate cultivators. In the southern districts, there being several merchants who make advances, and of course there being some competition, the farmers get for their pepper something that approaches to a fair price, and they are daily increasing the cultivation; but in the northern district every thing is so much under the control of *Mousa*, the great monopolist at *Tellichery*, that it would be of very little importance to the cultivator were all the vines to be destroyed; and few are willing to plant new ones in place of those that decay.

Mr. Wye's proposal for taking pepper in payment of the land-tax.

Mr. Wye thinks that the most ready way of encouraging the cultivation of pepper would be, to allow the proprietors to pay it to government, in lieu of revenue, at a certain fixed rate, which, he thinks, need not exceed 100 *Rupees* a *Candy*. The average price given by the merchants to those not in distress is 125 *Rupees*; but of late it has cost the Company much more. Those who could dispose of their pepper to greater advantage than the Company's offer, might sell it as they pleased; by far the greater part of it would, however, go to the Company; which would gain considerably, and could be put to no inconvenience, by the plan in the southern district, where the amount of revenue always greatly exceeds the value of all the pepper produced. In the northern districts it might perhaps, at times, be inconvenient for the Company to advance money, and the value of the pepper exceeds the amount of the revenue; but even there the pepper, to the extent of each man's land tax, might be received, at a fixed price, which, if fair and reasonable, would effectually protect the industrious cultivator from monopolists, whose influence has been known to affect even the commercial interest of the Company.

Mr. Wye thinks that it might be very advisable for the Company to purchase the whole of the pepper raised in the province, and to make advances to the poorer tenants who may be in need of such assistance Whatever the Company did not want for their own immediate commerce, might be sold by public sale at the great marts, such as *Tannore*, *Calicut*, and *Tellichery*; and the price to be given for the pepper should be regulated by the proceeds of these sales. Mr. Wye thinks that this would be an effectual mean of preventing smuggling, by which the revenue is at present excessively defrauded, there being a duty of 10½ per cent *ad valorem* on all the pepper exported. The whole of this business might be managed by the collectors, so far as the delivery of the pepper into the Company's store-houses, after which it would of course be under the management of the commercial resident. In the bonds taken by the traders when they make advances, there is no particular precaution taken for the delivery of the pepper of certain qualities; so that we may safely conclude, that difference of curing, or other similar circumstances, make no considerable difference in its value; the receiving it by the collectors, therefore, would be attended with little trouble, and require no particular skill. I have already mentioned this, as one of the means that might be adopted to obviate the difficulties that must always attend a tax which is imposed upon plantations by the number of trees that they contain I have in my possession a manuscript concerning *Travancore*, in which it is stated, that the *Kerit Ram Raja*, in the year 1757, having received some assistance from the English, was willing to favour their commerce. On this occasion Mr. Spencer, the English chief, took an account of the pepper produced in the diminions of that prince, where there was no land-tax, but where the *Raja* monopolized all the pepper, and gave the cultivators a fixed price for whatever they could raise. As the pepper trade of *Travancore* has always been more flourishing than any other, we may fairly infer, that this is the way in which a tax may be levied from it with the greatest advantage to the extent of cultivation. The whole pepper raised in the dominions of *Travancore* amounted to 11,752 *Candies*. For this the *Raja* gave to the cultivators 30 *Rupees* a *Candy*, amounting to 352,560 *Rupees*. The amount of the sales, even including 2,000 *Candies* that were given to the English Company at the low price of 82 *Rupees*, came to 1,312,260, or on an average 111⅔ *Rupees* a *Candy*. The *Raja* did not, therefore, allow the cultivators more than 27 per cent. of the produce; and yet we know that the cultivation was carried on with the greatest spirit. But were the Company to monopolize the pepper, and allow the farmers 50 per cent. of the value, or 60 *Rupees* a *Candy*, I am persuaded that their profit would greatly exceed the amount of any revenue which they can derive from the present plan. How far a similar monopoly might be extended to coco-nut and *Betel*, or *Areca*, with advantage, I am not certain. I think it probable, however, that it would contribute

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1800. Dec 20, 21. greatly to the benefit both of the revenue and of the cultivator. But these being bulky articles, and not easily smuggled, an excise on them might answer the purpose very well, and leave the trade more open to competition.

State of the plantations. The taxable trees which are planted in Mr. Wye's districts, according to that gentleman, are,

	Bearing.	Unproductive.	Total.
Jack trees...........	25,740	43,929	69,669
Coco-nut trees...........	294,025	426,548	720.573
Betel-nut trees...........	268,375	410,152	678,527
Pepper vines...........	8,484	24,026	32,510

According to Mr. Smee's survey they are,

	Bearing.	Unproductive.	Total.
Jack trees...........	34,428	72,117	106,545
Coco-nut trees...........	379,659	417,630	797,289
Betel-nut trees...........	206,699	437,833	*644,532
Pepper vines...........	29,764	87,092	116,856
Brab trees...........	941	3,741	4,682

Mr. Wye's statement is that by which the revenues are at present collected, and was formed several years ago. If accurate, these details would show that every article of plantation was advancing in the districts under Mr. Wye, except the *Betel-nut*, which grows chiefly in the interior parts of the country, where the disturbances have prevailed; and this confirms my opinion, that it is owing to these disturbances chiefly, and not to the taxes, that the plantations in many parts of *Malabar* are on the decrease.

Cattle and fodder. This seems to be a country well fitted by nature for rearing cattle; but no place, in fact, rears worse, or fewer. The hills over a great part of *Malabar* are clear of wood or bushes, and in the rainy season produce a thick coat of grass, which, as it ripens toward the beginning of the fair season, and is then about a cubit high, is fit for making hay. By the natives this is entirely neglected. Some of the grasses are indeed very coarse; but Mr. Wye has made good hay from one of the species, which I take to be Dr. Roxburgh's *Ischæmum geminatum*. It grows very commonly, and with a little pains might be made universal. At present, there being the greatest abundance of grass, the cattle of *Malabar* are in better condition that any that I have seen in India; but, as that

will soon wither up from the drought, I am told, that for three months before the commencement of the rainy season their condition will be deplorable. On the present system, no more cattle can be kept than what can be supported from the beginning of January until the end of May upon the straw of the second or smallest crop of rice. The straw of the first crop, owing to its being cut in the rainy season, cannot be preserved. If hay could be collected, or if on the higher *Parum* lands *Ragy* (*Cynosurus coracanus*) could be cultivated, merely for the straw, a great many more cattle might be kept, and the increased quantity of manure would be an immense advantage to the farmer. **1800. Dec. 20, 21.**

Every where in the interior parts of *Malabar* a prodigious inconvenience is felt, from the want of *Bazars* or markets. A little encouragement given to the *Nazarens* might induce that industrious class of men to settle in small villages of 30 or 40 houses, at reasonable distances throughout the country, where they would keep shops greatly to the advantage of the natives. **Want of markets.**

The exports and imports, by sea and land, in the part of this province under Mr. Wye, will be seen in extracts from the custom-house accompts, which were sent to me by that gentleman. See the Appendix at the end. **Commerce.**

Mr. Wye says, that in his districts there are 18,544 *Cannies*, or plots of ground employed for making salt, and that the quantity might probably be increased, were the inhabitants rich enough to incur the necessary expense. According to the calculations procured at *Calicut*, the quantity of salt made will be about 2,096 Winchester bushels. It will be seen, that the quantity of salt exported, especially by sea, is considerable: in the two last years, after allowing for the importation of a small quantity, an excess of 40,000 *Parahs* has been exported. I am not acquainted with the contents of a *Parah* of salt. If it be the same with a *Poray* of rice, the annual exportation would be double the quantity which, according to my calculation, is manufactured. The *Canny* of salt ground may, however, be different here from that in use at *Calicut*. **Salt.**

22d *December*.—In the morning I went a long stage to *Vencatacotay*. The road, most of the way, passes along the ridge of a low hill, whence narrow vallies go off toward both sides, and are separated from each other by branches of the hill. These vallies are very beautiful; but the rest of the country, at this season, looks ill. It is only the declivities of the hills that are formed into terraces for cultivation; the level ground on the summits of the ridges, which occupies a large proportion of the country, is quite waste. The soil in some places is apparently good; but, in general, the *Laterite*, or brick-stone, comes very near the surface, and would impede the plough. In some places the granite appears. As usual in *Malabar*, it is entirely free from veins of quartz or felspar. The whole, however, is covered with long grass used for thatch and pasture; but not a thousandth part of it is employed for these pur- **Dec. 22. Appearance of the country.**

1800. Dec. 22.

poses; and in December and January the remainder is burnt, which destroys the bushes that spring up in the rainy season, and keeps the country clear.

Vencata-cotay is in a district named *Shirnada*, and the land-tax is paid in kind. This appears to be owing to its having formerly been *Chericul* lands, that is, such as were appropriated for the support of a *Rájá*. When the *Rájá* of the *Tamuri* family, to whom it belonged, fled to *Travancore*, the whole was seized, and valued at the full rack-rent. By some error in the accompts, every *Patom* (portion equal to the quantity of seed sown) of rent was valued at a *Fanam;* which being more than its average value, the farmers would not have cultivated the ground, had the rent been demanded in money. It has therefore been taken in kind, as is usually done by landlords when they receive rack-rent. Last year the Company found a considerable deficiency from the amount rated in the public accompts, although the grain was kept until the dearest season before it was sold. A man has this year undertaken to pay the whole in money, on condition that the instalments of payment are made at favourable seasons. He is enabled to do this, by letting the ground to the most advantage; whereas the government allowed the farmers 100 seeds for every *ten-Poray-land*, and agreed to receive what was given them as the remainder of the crop, in which, of course, they were enormously defrauded. The farmers of *Vencata-cotay* make annual agreements for their lands, and frequently change their possessions; but no rice grounds are unoccupied.

Yatam of Malayala.

I observed one of the machines for raising water called a *Yatam*, which was made on a better construction than those above the *Ghats*. It was wrought by one man, who stood on a plank running parallel to the lever, and placed on one side; so that the side of the lever passed parallel to his face, and he was in no danger of being hurt by the bucket coming up between his legs, as happens where the man's face looks toward the end of the lever. The lever was made of a *Bamboo*, and the weight was a large stone fixed by a swivel. The bucket was made of an excavated piece of wood, shaped like the half of a Cheshire cheese, and, when full of water, was lighter than the stone, which of course raised it without any exertion of the labourer. From a well 16 feet deep the man raised four buckets in a minute, each containing $209\frac{7}{10}$ cubical inches, or about 178 ale gallons in the hour.

Family of the Tamuri Raja.

At night I was visited by the sixth *Rájá* of the *Tâmuri* family, who, as well as the third in rank, resides at *Vencata-cotay*. The third declined receiving a visit from me; and perhaps thought that his coming, as his relation did, would be derogatory to his rank. The *Rájá* who visited me was a good looking man of about 50 years of age. His suite was not numerous, but very well dressed. He said, that *Shirnada*, the country in which we then were, formerly belonged to the *Rájá* of *Vellater*. About 400 years ago that chief, having been attacked by the northern *Nairs*, applied for assistance

to the *Tamuri*, and by ceding *Shirnada* obtained the protection of that prince. The fort of *Vencata* was afterwards built by the *Tamuris*; but, although it was much enlarged by the late *Sultan*, it is still a place of no importance. The *Rájas* of *Malabar*, indeed, do not seem to have ever trusted to fortifications for the defence of their country. The *Tamuri* family, during the time they suffered exile in the *Travancore* dominions, were chiefly supported by the liberality of its prince. There are at present about 25 *Tamburettis*, or ladies of this noble family, and the males are nearly about the same number. **1800. Dec. 22.**

23d *December*.—I went a short journey to *Tiruvana-Angady*, and passed through a country similar to that which I saw yesterday. *Tiruvana-Angady* is a small *Moplay* town on the southern bank of a river which comes from *Irnada*, and in the rainy season is navigable with canoes for 32 miles upwards. It has no communication with the *Baypour* (*Vaypura*) river, as represented in Major Rennel's map. *Tiruvana-Angady* is the place which in our maps is called *Tervanagary*, and is remarkable for the decisive victory which in the year 1790 Colonel Hartley gained in its neighbourhood over the forces of *Tippoo*. Near the *Angady*, or market, there is a small fort, which was erected by the *Sultan* round a *Colgum*, or palace, belonging to the *Tamuri Rájá*. Both have now fallen into ruins; and the *Tamuri*, since his return from exile, has not visited the place. Dec 23. *Tiruvana-Angady*.

In this district of *Shirnada* the *Parumba* land may be divided into three kinds. First that which is fit for plantations. This kind of land pays a rent to the landlord, when cultivated for ginger, turmeric, plantains, or other articles that are not taxed: the rent amounts to 1 *Fanam* for every *Poray-candum*, of which nine-twenty-fourths go to government as land-tax. The second kind is land near the villages, which is cultivated once in three years for hill-rice, *Sesamum*, and *Shamay* (*Panicum miliare*). It pays the same rent as the first kind, and the same share of this is taken as land-tax. The third kind is cultivated in the same manner; but, on account of its distance from the villages, poverty, or other causes, such as the officers who valued it having been corrupted, it pays no tax. To the landlord it ought to pay a fifth part of the produce; but some farmers refuse to give more than one-seventh. *Parum*, or high-land of *Shirnada*.

I here examined the cultivators concerning the manner of raising the pepper vine. They say, that it does not thrive where planted close together; and therefore every man, in the garden near his house, has five or six trees only, which are intended as supports for this valuable plant. The *Mango* tree (*Mangifera*) is reckoned the best for the purpose, and its fruit is not injured by the pepper. The *Jack* tree (*Artocarpus integrifolia*) is sometimes employed; but its fruit is diminished in quantity, and is said to be injured in quality, the pepper communicating its flavour. This circumstance I have heard confirmed by Europeans; but I confess that I am still sceptical. The pepper-vine thrives also very well on the *Erythrina*; and, Cultivation of black-pepper, *Piper Nigrum*.

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where there are no trees in the garden, this is preferred; as a large branch of it, being put in the ground in the rainy season, will in the course of a year be fit for receiving the vine; and in the mean time *Mango* trees may be raised, to serve after the *Erythrinas* have died; for the pepper vines, after bearing from six to fifteen years, kill this tree. The *Mango* tree ought to be at least twenty years old before any pepper vines are put on it. Suppose a *Mango* tree be fit for receiving the vine, the following is the manner in which that is planted. Between the 11th of June and the 12th of July, or at the commencement of the rainy season, the soil round the tree is dug; and a small bank, surrounding the root at a cubit's distance, is formed to confine the water. Then from 8 to 12 shoots of the vine, in proportion to the size of the tree, are laid down within the bank, and with two or three inches of one end standing up against the trunk. They are then covered with about an inch of fine mould; and, if any length of time occurs without rain, they must be watered; but this is seldom required. The shoots are about a cubit long. As the vines grow, they must be tied up to the tree, and rank weeds must be pulled up from near their roots. In the hot season they require to be watered with a pot; and at the commencement of the rainy season some leaves, ashes, and dung, must be spread on the ground near their roots. The pepper vine begins to bear at six years of age; in four years more it is in full perfection, and continues so for twenty years, when it dies. The young *amentà* begin to form at a feast called *Tiruvadaray Netvelly*, which is accompanied by a certain conjunction of the stars, the period of which none but astrologers can tell. It happened this year on the 17th of June. The beginning of the rainy season may therefore be considered as the flowering time of the pepper. When the fruit is intended for black pepper, it is not allowed to ripen; but is collected green, so soon as the berries become hard and firm, which happens between the 13th of December and the 11th of January. As the *amenta* come to a proper maturity, they are pinched off by the fingers, placed on a mat, and rubbed with the hands and feet, until the berries separate from the stem These are then spread out on mats, so that one does not lie upon another, and are dried two, or at the most three days in the sun; while at night they are collected in earthen jars, to keep them from the dew. The pepper is then put up in mat-bags, containing from 2 to 4 *Tolams*, or from 64 to 128 lb., and is fit for sale. The whole cost attending this process seems to be very trifling; and I have no doubt of Mr. Smee's allowance, of one-ninth of the produce, being fully adequate to defray the annual expense. The original cost of planting can hardly be brought to an accompt, it is so small. What is intended for white pepper, is allowed to become quite ripe. The berries are then red, and, the plup being washed off, the white seed is dried for sale. The wines in this case are very apt to die, and in this province little or none is now made.

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Tenures of pepper gardens.

The soil most esteemed here for pepper is red and contains small stones. When a man wants to make a garden, he gives on a mortgage bond (*Cuey Canum*) from 15 to 40 *Fanams* to the landlord for three *Poray-candums* of a proper soil; and pays annually one *Fanam* for each *Poray-candum*, should he raise nothing in his garden but ginger, turmeric, plantains, *Mangoes*, or the like: but out of this the landlord pays the tax. Should the mortgagee plant any *Jack*, *Betel-nut*, or coco-nut trees, or pepper vines, as soon as these come into bearing, he must give an eighth part of the produce to the landlord, and pay the land-tax, which on pepper vines is 3 *Fanams* for every tree. This is only to be understood of the largest trees, supporting ten or twelve pepper vines. In the revenue accompts, a sufficient number of smaller trees are written as one, to make the tax equable, and not heavier than at the rate of three *Fanams* for a tree of the best quality. The three *Fanams* paid for the land-tax are new, of which $3\frac{1}{2}$ are equal to $1\frac{1}{3\frac{1}{2}}$ *Rupee*. But all other *Fanams* mentioned among the farmers are old, and equal to $\frac{1}{4}$ *Rupee*.

Produce of the pepper vine.

The produce of the vines growing on a tree paying full revenue the cultivators estimate at half a *Tolam*, or 16 lb.; but the collector's agent says, that this is the produce of a very ordinary tree; that a middling one produces three quarters of a *Tolam*, or 24 lb.; and that a good one in fact produces one *Tolam*, or 32 lb. The land-tax, the farmers acknowledge, amounts to about a third part of the produce. Now we shall see that they frequently sell their pepper at 15 old *Fanams* a *Tolam*, equal to $13\frac{1}{4}$ new ones; and by this estimate the average produce should be $\frac{9}{13\frac{1}{4}}$ parts of a *Tolam*, or about $21\frac{3}{4}$ lb. In the revenue accompts of Mr. Wye's districts, the number of trees bearing pepper vines is rated at 8484; and the average quantity exported is 4270 *Tolams*, which gives very nearly half a *Tolam*, or 16 lb. for the produce of each tree; to which we must add what is consumed in the country, and what is smuggled; and then $21\frac{3}{4}$ lb. will not, I am persuaded, be thought too great an allowance. Each tree actually producing pepper with vigour is, however, by no means to be conceived as producing that quantity. This is the produce of the best; and in the revenue accompts, four, or even five, are written as one, as I have before mentioned; still I am at a loss to explain the very small quantity of produce stated by Mr. Smee as the average of the trees in the southern and middle parts of *Malabar*. After rejecting all trees covered with old or young vines, as not productive, he estimates the average produce of the remainder at $4\frac{1}{2}$ lb. of dried pepper. I am still farther staggered by the quantity of pepper stated by Mr. Wye to be exported from the southern division alone, and which that gentleman has good opportunities of knowing: this he stated, in round numbers, at 800 *Candies* of 640 lb. Now the whole productive pepper vines, in the southern and middle division of *Malabar*, by Mr. Smee's valuation, amount to only 45,803, and at his average rate of produce

1800. Dec. 23. could give only 322 *Candies*. By Mr. Wye's estimate of the export, each of them ought certainly to give more than 11 pounds, exclusive of country consumption, smuggling, and the number of vines in the middle division; but, as these are very few, they need not be taken into consideration. The obstacles, indeed, that are thrown in the way of the most careful investigation of the produce of plantations are such as should cause a mode of taxation founded on a supposed knowledge of its amount to be totally rejected. The present tax is three *Fanams* for every vine; that is to say, for as many vines as produce nine *Fanams* worth of pepper. Mr. Smee, in consequence of his finding the produce so small, proposes to reduce the tax to one half levied on the actual number of productive vines, which, by his account, amount to about one-fourth of the whole. The present tax is certainly not oppressive, as the cultivation is extending; and the cultivators, besides giving a considerable loan on mortgage to the landlord, can afford to give him one-eighth part of the produce, and a small ground-rent for the garden. It will be seen, that the principal evils attached to the cultivators arise from their own want of prudence.

Trade in pepper. Farmers of prudence and substance, such as the *Moplays* mostly are, receive no advances; but, when their pepper is fit for market, sell it to the best advantage, and deliver it at the sea-port towns at from 24 to 25 old *Vir'-Raya Fanams* a *Tolam*, or at from 120 to 125 *Rupees* a *Candy* of 640 lb. The case, however, is very different with most of the *Hindus*, who in *Malabar* are as remarkable for a thoughtless profusion, as in other parts they are notoriously penurious. Between the 12th of June and 13th of September, the Mussulman traders come from the coast, and enter into written agreements with those who are willing to receive advances. The cultivator agrees to deliver a certain quantity of pepper, for which the trader pays down immediately from 13 to 15 *Fanams* a *Tolam*, or from 65 to 75 *Rupees* a *Candy*. Should the cultivator, at the crop season, be unable to deliver the quantity for which he contracted, he must pay for the deficiency at the market price, which is generally 120 or 125 *Rupees* a *Candy*. As he is seldom or never able to pay this in cash, he gives a note of hand, engaging to deliver pepper for the amount of the price of the deficiency, at the rate of one *Tolam* for from 13 to 15 *Fanams*; but no interest is charged. Indeed, the profits of the trader are immense; as for an advance of 15 *Fanams* for six months, he gets a profit of ten; and it is evident that the risk is very small. Should a merchant not consent to receive the pepper, on account of its being bad, the cultivator may sell it to any person that he pleases, and give the proceeds to the merchant. Should these not amount to the market price, he gives a note of hand for the balance, which is considered as part of the advance for the next year. It is evidently the interest of the merchant to keep up a high nominal price, even should he, in selling the pepper to foreigners, be obliged to allow a large discount; for all the balances due by the farmer are

paid at what is called the market price. The present market price is 125 *Rupees* a *Candy*, or 2*l.* 1*s.* 5*d.* a hundred-weight. It is sometimes so low as 100 *Rupees*, and at others rises to double that sum. **1800. Dec. 23.**

The cultivators, when questioned concerning the reason that can induce them to take up money on terms so disadvantageous, attribute it entirely to the land-tax; for every evil in *Malabar* is ascribed to that as its source. When asked, however, if they would be willing to pay in their pepper to the Company, in place of the land-tax, at 18 or 20 *Fanams* a *Tolam*, they start innumerable objections. At length I found out, that the real cause of the *Hindus* disposing of their pepper at this low rate, is a festival called *Wona*, which is celebrated in the month *Singhium*. At this the *Hindus* expend in drinking and finery every thing which they can raise. In their fits of intoxication there are constant scenes of fighting and abuse, which were a great source of revenue to the *Rajas*, as opening a way for law-suits and criminal prosecutions; and, with a view probably to encourage this source of revenue, the *Rajas* did not punish any murder that was committed during the festivities of *Wona*; but restricted themselves to fining those who gave abusive language, in the vehemence and indecency of which the *Hindus* exceed all other nations. It is hardly necessary to mention, that such an excuse for murder would not be admitted in the courts which are at present established in the country. **Wona festival.**

In the gardens of this neighbourhood much ginger and turmeric are cultivated. For this purpose a red soil, free from stones, is reckoned the best. Between the 11th of April and the 11th of May the garden is dug with the hoe, aad formed into ridges, one cubit broad, one cubit high, and one cubit distant from each other, their sides being perpendicular. Two rows of the cuttings of ginger, or turmeric, are put in each ridge, and slightly covered with earth. The plot is then covered with bushes, to act as a manure, and to keep off the sun. Between the 12th of June and the 13th of July, the shoots appear above ground; and ten days afterwards the stems of the bushes are removed. Between every two rows of the plants, small twigs of trees are then put lengthwise and across, and weeds are removed by the hand. Between the 13th of December and the 11th of January, both roots are fit for pulling. Those intended for replanting are mixed with a little red mud, and immediately buried in a pit. **Ginger and turmeric.**

The ginger, intended for sale, is scraped with a knife to remove the outer skin; and, having been sprinkled with the ashes of cow dung, is spread out on mats, and dried eight or ten days; when it is fit for sale.

The turmeric intended for sale, immediately after having been taken up, is boiled a whole day in water. The pieces that are large are then split, and for five or six days the whole is exposed on mats to the sun.

1800. Dec. 23. *Cycas.* In the gardens and plantations toward the sea coast of the southern parts of *Malabar*, a species of *Cycas*, called *Indu* by the natives (*Todda Panna, Hort. Mal.*), is very common; but it grows spontaneously from the nuts that accidentally fall. The nuts are collected; and, having been dried for a month in the sun, are beaten in a mortar, and the kernels formed into a flour, which the natives eat, and call *Indum Podi*. It is reckoned superior to the flour prepared from the stem of the *Erimpanna* (*Caryota*), but it is only used by the poor, who between the 14th July and the 13th of September are in danger of perishing. It is prepared during the former month, and cannot be preserved longer than the end of the latter.

Dec 24. 24th *December*.—I set out with an intention of stopping at *Parupa-nada*, which in our maps is called *Perperengarde*; but, owing to the untowardness of my guides, I found, on my arrival there, that my tents had been carried on to *Vay-pura*. I was of course obliged to follow; but much of my baggage did not arrive until four in the afternoon, and the cattle were worn out with fatigue. From *Tiruvana Angady* to *Parupa-nada* is a plain, intersected in the middle by a deep creek running north and south, and forming the boundary between the *Shirnada* belonging to the *Tamuri*, and the dominions of a petty chief called the *Parupa-nada Raja*. The country formerly belonging to this chief extended in a narrow tract along the sea side, from the river of *Calicut* to *Tannore*. At *Tannore* commenced another petty *Rajaship*, extending to the *Panyani* river, and called *Bettutanada*. The family that governed this has become entirely extinct.

Appearance of the country. The plain between *Tiruvana* and *Parupa-nada* consists partly of high (*Purum*) and partly of very low, or *Paddum* land. Both are at present very much neglected. The higher land, being no where steep, seems capable of being wholly converted into plantations, or of being cultivated with hill rice, and other *dry-grains*. The *Paddum-land* is very low; and so much inundated, that a great part of it does not become dry until the hot season. It is said to be of a very good quality. The neglected state of agriculture is attributed to the want of people, and to the poverty of those who remain. Near the sea coast runs a narrow border, well filled with coco-nut gardens, and highly productive. Between this and the sea are barren downs, on which is situated the *Moplay* town *Parupa-nada*. This contains about 700 houses, and is the best built native town that I have yet seen. The houses are built of stone; and, were they better aired, would be comfortable even for Europeans.

Parupa-nada.

Moplays. The *Moplays* on the sea coast are a most industrious quiet people, and will scarcely acknowledge as brethren those ruffians who live in the interior part of the country, and who, having been let loose upon the *Nairs*, have acquired a bloody-thirsty, rapacious disposition, which they justify by considering their adversaries as infidels.

Rivers and surf. At some distance north from *Parupa-nada*, I passed over, in a

very bad ferry boat, the mouth of the river which comes from *Tiruvana*; and about two miles farther, I crossed a still larger river, and came to *Vay-pura*, which in our maps is called *Baypour*. When compared with that at Madras, the surf on this coast is trifling; and, except where rocky head-lands run a little way into the sea, boats of any kind might, without danger, land on every part of the coast. I met people tracking boats along the shore, and observed men, who were walking on the outside of the surf, and pushing along floats of timber, while the water did not reach up to their shoulders. 1800. Dec. 23.

The *Parupa-nada Raja* resides at *Vay-pura*. He pretends to be of the *Kshatri* caste. Like those of the other noble families of *Malabar*, the ladies of this, who are called *Tamburettis*, cohabit with such of the *Namburis* as they choose, and all their male children are called *Unitamban*. The five eldest of these are called *Rajas*, each of whom has a peculiar title. That of the oldest, who is the head of the family, is *Taycapadu*. *Parupa-nada Raja.*

Vay-pura was originally called north *Parupa-nada*. It is a small town, containing 120 houses of all castes, and has hardly any trade. The situation is most beautiful, on the north side of a river, where it enters the sea. Within, the river has deep water; but, like all those on the coast, has a bar at its mouth. At favourable seasons vessels drawing 14 feet may be floated over the bar by means of casks. Some projectors have here erected lofts, and other works accommodated for building ships of war; for which purpose no place seems to be worse fitted. Small vessels, however, might be built to considerable advantage, a good deal of timber coming down the river, which affords fine situations for slips, or docks. The native collector says, that two years ago 10,000 *Teak* trees were brought down the river; but this was the produce of the forests for four years, none having been exported during that time. The native collector thinks, that between two and three thousand trees may be annually procured. The timber is cut on the *Ghats*, and conveyed by elephants to the part of the river which in the rainy season has water sufficient to float it. Many of the best trees are cut in two, to enable the elephants to drag them; and in this operation many of them are rent, or otherwise materially injured. *Teak* timber, of an ordinary quality for ship-building, sells at 9 or 10 *Rupees* a *Candy*, which measures $10\frac{3}{4}$ English cubical feet. The foot, therefore, costs from about 18*d.* to 2*s.* Choice timber sells as high as 16 *Rupees* a *Candy*, or $34\frac{2}{10}d.$ a cubical foot. *Vya-pura, and the Teak trade.*

At *Vay-pura* some private gentlemen, with a view of supplying the dock yard at Bombay with *Teak* plank, have erected a saw mill; and a great deal of money has been expended in the project, with very little prospect of success. The power intended to have turned this mill was the wind; which appears to me to be by far too precarious a moving power for such heavy machinery.

No rice is exported from this river, the produce of the country being only sufficient for the maintenance of the inhabitants.

1800. Dec. 25. Coco nut plantations.

25th *December*.—I went a short journey to *Calicut*, and had a good road. By the way I crossed a river, much inferior to that at *Vay-pura*, but provided with excellent ferry-boats, composed of two canoes connected by a stage. The road passes through plantations of coco-nuts, some of which are thickly set; but in general, throughout the coast, not one half the number of trees are placed in the gardens that they are calculated to receive. Very little attention is any where paid to keep the gardens in order. The flat *Parumba* lands near the sea are never cultivated for hill-rice, and pay no land-tax, unless for the trees that may be planted on them; as is the case indeed every where, except in *Shirnada*. A man who wants a house and garden gives for a piece of suitable ground from 15 to 20 *Fanams* on mortgage. If the landlord wishes to reassume this ground, which he may at any time do, he must not only repay the mortgage, but also pay the value of the house, of the fences, and of any trees that have been planted. If a man wants to raise a plantation of coco-nut trees, he gives from 60 to 90 *Fanams* on mortgage for 10 *Candies* of land, and gives the landlord annually a piece of cloth, and a bunch of plantains, as an acknowledgment of tenure. The *Candy* is 12 *Gajas* (of $28\frac{1}{8}$ inches each) square: so that the value of this kind of land, to the landlord, is from 8*l.* 4*s.* $0\frac{1}{2}$*d.* to 12*l.* 6*s.* $0\frac{3}{4}$*d.* an acre. The farmer or mortgagee is at the whole expense of making and cultivating the garden, and pays the tax, which is half a *Fanam* for each good tree, old and young trees being exempted, and three or four bad ones being rated as one in the revenue accompts. The trees are planted in such a straggling manner, that it is impossible to say what the amount of the tax on any given space really is. It is said, that 20 trees may be planted on one *Candy*, of which ten ought to be in full bearing, and to produce on an average 23 nuts, worth at the cutting season three-fourths of a *Fanam*; but, if dried, worth one *Fanam*. The *Tiars* give a *Fanam* yearly for each tree, for liberty to extract the juice. This account was given me by the native revenue officer at *Vay-pura*, while no cultivators were present; and if it be just, an acre would produce 1266 nuts, worth when green 1*l.* 0*s.* 6*d.*, and when dried 1*l.* 7*s.* 4*d.*; and if the tax were strictly exacted, an acre would pay to government 13*s.* 8*d.*; but in fact the tax is not levied by an actual enumeration, nor are the trees ever planted so closely. For at the rate stated here, the trees would be distant from each other only about 6 feet. The produce stated by the collector, as the average rate of one tree, is 30 per cent. less than Mr. Smee's estimate; probably owing to his including every tree of a bearing age, good or bad, whereas Mr. Smee rejects all that do not bear more than 10 nuts. The very great difference between the estimates founded on the collector's information, and those founded on the information of the cultivators at *Shetuwai*, show the difficulty in this province of procuring statistical accounts. The account of the cultivators seems to agree best with the actual number of trees in any given space: that

of the collector, with pains and industry, might perhaps be realised. 1800. Dec. 25.

26—30th *December.*—I remained at *Calicut* with Mr. Spencer, the president of the commission for the affairs of *Malabar*; and from that gentleman, and from Mr. Smee, the other commissioner, I received every assistance that I could require. Dec 26—30.

The proper name of the place is *Colicodu.* When *Cheruman Permal* had divided *Malabar* among his nobles, and had no principality remaining to bestow on the ascestor of the *Tamuri*, he gave that chief his sword, with all the territory in which a cock crowing at a small temple here could be heard. This formed the original dominions of the *Tamuri*, and was called *Colicodu*, or the *cock-crowing.* This place continued to be the chief residence of the *Tamuri Rajas* until the Mussulman invasion, and became a very flourishing city, owing to the success that its lords had in war, and the encouragement which they gave to commerce. *Tippoo* destroyed the town, and removed its inhabitants to *Nelluru,* the name of which he changed to *Furruck-abad*; for, like all the Mussulmans of India, he was a mighty changer of old Pagan names. Fifteen months after this forced emigration, the English conquered the province, and the inhabitants returned with great joy to their old place of residence. The town now contains about five thousand houses, and is fast recovering. Before its destruction by *Tippoo* its houses amounted to between six and seven thousand. Most of its inhabitants are *Moplays.* History of *Calicut,* or *Colicodu.*

The people here say, that the whole country between *Cape Comorin* and *Surat* is, in their books, divided into *Keralam* and *Kankanam*; both of which were created by *Parasu-rama,* and therefore ought not to be included in the fifty-six *Desams* of *Bharata-khanda.* Of their country the people here have a history, which is called *Kerala Ulpati,* and is written in a pure and old dialect of the *Ellacanum,* or poetical language. It is understood with great difficulty, many passages are interpreted in different ways; and some of the copies are said to differ essentially from others. The author is supposed to have been *Sankara Achârya.* History of *Kerala.*

At this place Mr. Torin, the commercial resident, has been endeavouring to establish a manufacture of the plain cotton goods which are called *longcloth.* It is of 6 *Calls* fineness (that is to say, contains in its warp 744 threads), and the pieces are 72 cubits long, by 2¼ in width. The prices given to the weavers are 34, 32, and 30 gold *Fanams* for the piece, according to its quality. Very few are made of the first quality. The prices reduced to *Bombay Rupees,* and these valued at the mint price, are 18*s.* 6¾*d.*, 17*s.* 5½*d.*, and 16*s.* 4½*d.* The cloth is afterwards bleached, and sent to Europe on the Company's account. The weavers have been brought from the dominions of *Travancore* and *Cochi*; and Mr. Torin complains of their indolence, and want of honesty. They are 344 in number, but work 237 looms only, and bring in monthly 468 pieces of cloth. Manufacture of cotton cloth.

1800. Dec. 26--30.

Within these two months Mr. Torin has established another manufactory of the same cloth at *Pali-ghat*, of which he has favourable expectations, as the cloths are better and cheaper. *Pali-ghat* is indeed the only part of the province that seems to be a fit situation for manufacturers, as its neighbourhood is the only part that affords a surplus of grain. The other parts of the province have in their plantations more than sufficient employment for all the hands which they can support, and a constant demand for the produce of the labour which is so bestowed. I should, therefore, consider the introduction of manufactures as likely to prove injurious, by taking away labourers that might be more usefully employed. At present, by far the greater part of the clothing that is used in the country is imported. In every district a few weavers make coarse cotton cloth for the use of the lower classes; and at *Tellichery* a few make table-cloths, napkins, and towels for the Europeans and native Portuguese.

Varnish.

Some men of the *Panchala* tribe, which here is called *Peringullan*, paint and varnish wood by the following process. They take buttermilk, and boil it with a small quantity of quicklime, until strings form in the decoction and separate from the watery parts, which they decant. The stringy matter is then mixed with the paint, which has been well powdered. With these the wooden work is first painted; it is then allowed to dry for one day, and afterwards receives a coat of *Pundum*, which is the fresh juice of a tree called *Peini Maram*. The *Pundum* must be used while it is fresh, and will not keep for more than two or three days. After the first coat of *Pundum* has dried, another coat of paint is given, and that is followed by another of varnish. In the same manner leather may be painted and varnished. The varnish effectually resists the action of water. All my attempts, however, to find out the varnish-tree were vain.

Exports.

Calicut and *Vay-pura* form a small district; and, unfortunately, I have received no answers to the statistical queries which I proposed relative to it; as has also been the case in the districts under the management of Mr. Drummond and Captain Osburne, which renders my account of *Malabar* much less complete than I expected to make it. From Mr. Smee's valuable communications I am persuaded, that from the southern and middle divisions of *Malabar* at least the following quantity of the produce of plantations is annually exported.

			Rupees.
Coco-nuts	...	38,458 thousand, at 13½ *Rupees*, ...	519,048
Betel-nuts	...	58,392 thousand, at 3 *Fanams*, ...	32,916
Black pepper	...	340 *Candies*, at 125 *Rupees*, ...	42,500
		Rupees	614,464

Besides large quantities of ginger and turmeric; and I have already mentioned, that the quantity of black pepper is more than double that here stated.

In the APPENDIX at the end, will be found a report, made by the commercial resident at *Calicut*, on the province having been ceded to the Company; which will throw considerable light on the trade of the country. 1800. Dec. 26–30.

Having procured an intelligent native officer of revenue, I went with him to a rice field belonging to a man of substance; and, having measured this, found that it contained 27,893 square feet. The *Poray* here contains 607½ cubical inches. These preparatory measures having been taken, I, in presence of the native officer, obtained the following account from the proprietor of the field, and believe that what he stated may be depended on as true. Produce, seed, rent, and land-tax of rice land.

The field which I measured was of a poor soil, and in the revenue accompts was called a *five-Poray-land*; but in fact it sows 6 *Porays* in the first crop, and 5 *Porays* in the second. The person to whom it has been mortgaged stated its usual produce to be 36 *Porays* in the first crop, and 15 *Porays* in the second, in all 51 *Porays*.

This, he says, is disposed of as follows:

	Porays.
Negadi, or land-tax	15
Charges of collection	1½
Seed	11
Slaves, and other stock	11
Landlord	2¼
Interest of 25 *Fanams*, which he has given on mortgage, and which ought to be considered as part of the landlord's profit	1¼
Farmer's profit	9
Porays	51

On the sea-coast the *Poray* at harvest time is worth one *Fanam*. Reducing the measures and money, we shall have, at this rate, for every acre,

	Produce. Bushels.	Value. £	s.	d.
Negadi, or land-tax	6·619	0	12	9½
Charges of collection	0·6619	0	1	3¼
Seed	4·8639	0	9	4½
Expense of cultivation	4·8639	0	9	4½
Landlord	0·9928	0	1	11
Interest for money advanced to ditto	0·5516	0	1	0¾
Cultivator's profit	3·9713	0	7	8
Total of two crops....Bushels	22½	£2	3	5½

If the same extent of ground had been of the best quality, these people say, it would have been rated in the public accompts at six *Porays*, and would produce in the first crop 48 *Porays*, and in the second crop 35 *Porays*, in all 83 *Porays*. This would be divided as follows:

1800.
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	On the field.	By the Acre.			
		Bushels and dec. parts.	Value.		
	Porays.		£	s.	d.
Tax, and charges of collection.. ...	19¾	8·715	0	16	10
Seed...........	11	4·8639	0	9	4½
Charges of cultivation...	11	4·8639	0	9	4½
Interest of mortgage..................	1¼	0 5516	0	1	0¾
Landlord.........	10	4·4126	0	8	6¼
Cultivator's gain...	30	13·2378	1	5	6¾
Total.........	83	39 6448	3	10	8¾

Extent of the *Poray-candum.*

The *Poray-candum* here is from 4,649 to 5,578 square feet, according to the crop; average 5,113. If the seed be also sown of the same thickness at *Pali-ghat*, *Angada-puram*, and *Chowgaut*, where the *Poray* is larger, and of which I think there is no reason to doubt, the *Poray-candum* at these places ought to contain 5,893 square feet. Mr. Warden's estimate makes it only 3,364; my estimate at *Pali-ghat* made it 7,622; Mr. Drummond's estimate made it 5,827, which approaches so near what I here found to be the case, that I consider it as the real extent, and that the average quantity of seed sown on an acre is a little less than 2½ bushels.

Rice-land of *Malabar* really valuable.

Owing to the comparative thickness of the seed in *Malabar*, with that in the eastern parts of India, the crops appear very poor, when the increase on each seed sown is only mentioned; from 5 to 10 seeds being what is usually allowed as the produce in *Malabar*, while 40, and even 60 fold, are frequently mentioned in the *Carnatic*. But the rice land of *Malabar* is really very valuable, and bears actually heavier crops than most of the country toward the east. The soil near the sea is poorer than in the interior of the province; but the grain being higher priced at the sea side, makes the value of the crops in both parts nearly the same.

Salt manufacture.

All along the coast of *Malabar* salt is made by the natural evaporation of the sea water. In order to be satisfied concerning this subject, I first examined a set of people called *Vaytuvans*, who are those by whom the salt is made. Their account is as follows:

Account given by the *Vaytuvans*, or manufacturers.

Low grounds near the inlets from the sea, and surrounded by channels into which the tide flows, are chosen for the purpose. Between February the 10th and March the 11th, the preparatory steps must be finished. First, the tide is excluded, by damming up at low water the mouth of the channels. The field is then cleaned, by removing a slippery green *conferva* that grows in the rainy season. It is then ploughed twice, and the roots of any herbs that grow on it are carefully removed. The field is then allowed 20 days

to dry, and the clods are broken with a wooden stake. The channels 1800. Dec. 26–30.
for admitting the tide are then cleared, and filled with sand, to be used as afterwards mentioned. Part of it is mixed with ooze, and of these materials is formed a square plot, or one in form of a parallelogram, which is raised about a foot above the level of the field, well smoothed, and then every day for a month rubbed with a stone, until it becomes solid and hard. It is divided into small squares, eight or ten cubits in extent, and surrounded by small banks of the same materials. This plot is used for evaporating the brine. It is surrounded by several small mounds, which are formed of sand taken from the channels and mixed with a little mud. In the summit of each is formed a small cistern, about a cubit in diameter. From the bottom of this a *Bamboo* spout conveys any water that may be put in the cistern, to a reservoir which is formed at the bottom of the mound. The whole field is then smoothed; and about the 12th of March the dams are removed from the channels, and the tides are daily admitted. Some earth is every morning scraped from the surface of the field, and with this the cisterns in the mounds are filled. Water from the channels is then poured upon this earth, and filters gradually through the pipe into the reservoir. A clear brine is thus procured, with which every day at noon the small squares in the plot are filled, to about the depth of a quarter of an inch. In the course of the afternoon the water is evaporated by the sun and wind, the salt remains quite dry, and is collected in the evening. This operation is repeated daily for 92 days, from the 12th of March to the 11th of June inclusive. The salt made in the beginning of the season is the best and cleanest. The grain is large and cubical; but it is never white, and has a strong attraction for water.

A field thus fitted for making salt is called *Cullum*, and each square in the evaporating plot is called a *Canny*. The *Canny* ought to be twelve feet long by eight broad; and six of them pay one *Fanam* as land-tax. If they happen to be larger or smaller than the proper measure, they are taxed accordingly. A family of *Vaytuvans* can manage 40 *Cannies*. The proprietor of the field, whether he be a landlord (*Jenmcar*) or a mortgagee (*Canumcar*), either hires a *Vaytuvan* to work it, or employs his own slaves. In the former case, the *Vaytuvan*, during the two months that he is employed in the preparatory steps, receives half a new *Vir'-Ráya Fanam* a day, his wife gets a quarter of a *Fanam*, and the proprietor finds the ploughs and cattle. When the salt begins to be made, the *Vaytuvan* receives two-thirds, and the proprietor one-third of the produce. A field of 40 *Cannies* produces daily 80 *Puddies*, of 121½ cubical inches, which at the time sells for from 20 to 30 *Puddies* for the *Fanam*. Allowing, therefore, that a man and woman manage a field of 40 *Cannies*, and that the salt is sold at the cheapest, in 92 days evaporation they would make 7360 *Puddies* of salt, or 416 bushels; but I am inclined to think, that, although the *Vaytuvan* did not mention this circumstance, an allowance must be made for rainy days that

1800. Dec. 26—30.

occasionally happen at this season, and must interrupt the process. I allow therefore only 84 days' evaporation; producing 6720 *Puddies*, or almost 380 bushels of salt, worth 224 *Fanams*, or 64 *Bombay Rupees*, or 6*l*. 2*s*. 3*d*. Of this the *Vaytuvan* receives two-thirds, or 4*l*. 1*s* 6*d*.; to which if we add the 40 *Fanams* that he and his wife receive in the preparatory months, their wages, for the five months of the salt-making season, we shall find amount to 189⅓ *Fanams*, or 5*l*. 3*s*. 4*d*.

On the same data the proprietor's share will be worth 2*l*. 0*s*. 10*d*., from which deduct 6$\frac{4}{6}$ *Fanams* as land-tax, and there will remain 1*l*. 17*s*. 2½*d*. as profit; against which the only charges are, the 40 *Fanams* given to the *Vayturans*, and the use of a plough for a few days. When the salt sells high, one half must be added to all these gains.

Account given by a proprietor.

A person who has obtained thirteen salt fields, containing 360 *Cannies*, by advancing money on mortgage, says, that to work them he employs ten men and ten women of the *Vaytuvan* caste; which makes the quantity of work performed by each a tenth less than the statement of the *Vaytuvans* does. During the two preparatory months he gives each man and his wife half a *Fanam* only a day; and that partly in cash, partly in provisions. The *Vaytuvans* get two-thirds of the produce. He agrees with them in the daily quantity of salt produced from one *Canny*, namely four *Nallis*, or two *Puddies*; but he says that the productive season lasts only 75 days. I shall however, as before, consider 84 days as a just medium between his account and that of the *Vaytuvans*; and then the produce of his estate will be annually 120,960 *Nallis*, or 3428 bushels, worth at the cheapest season 2016 *Fanams*. This is divided as follows:

		Fanams.
To the *Vaytuvan*, for two months' wages		300
for two-thirds of produce		1344
Land-tax		60
To the landlord, interest of 400 *Fanams* advanced by the landholder	30	
Paid annually	20	
		50
Profit to the landholder		262
		Fanams 2016

At this rate, the bushel of salt is worth $\frac{3863}{10000}$ of a penny.

Customs of the *Vaytuvans*.

These *Vaytuvans* are not considered as *Súdras*, and consequently are of the impure tribes called *Panchumas*. They are of *Malayala* extraction. Besides making salt, they quarry stones, dig tanks, build mud walls; and, from the outer husk of the coco-nut, their women twist *Coir* rope. They can all eat together and intermarry. They have no hereditary chiefs, and refer all their disputes to the officers of government. A man marries only one wife, who lives in his family, and whose children are considered as his heirs. The ancient custom permitted a man to put his wife to death, if he

detected her in adultery; but at present the cuckold contents himself with drubbing his wanton spouse. The reason of this seems to be, that none of the higher castes will touch a *Vaytuvan* woman, and none of the slaves can approach her house; so that she has no opportunity of being corrupted, except by a man of the same caste; and a slip with such a person, among the lower *Hindus*, is looked upon as a very trivial matter. Some few of the *Vaytuvans* can read a little. They bury the dead, and seem to have no knowledge of a future life. As the deity peculiar to their caste, they worship *Nedamaly Bhagawati*, a goddess who is represented by a stone, which is placed in a hut formed of coco-nut leaves. In March an annual festival is celebrated in honour of this idol. It lasts three days, during which a lamp is burned in the rude temple, and a fowl is sacrificed before the stone. The most venerable of the caste then takes some boiled rice, carries it thrice round the temple, offers it to the goddess, and divides it among the people, who eat it with reverence, considering it as holy. The *Vaytuvans* are not permitted to approach the temples of the great gods; but may send offerings by the hands of a person of pure descent. They have no *Guru*, *Purohita*, nor priest of any kind.

1800. Dec. 26—30.

31st *December*.—During the night there has been heavy rain, which at this season is very uncommon. In the morning I went to *Coduwully*, which by us is commonly called *Cadolly*.

Dec. 31.

The country through which I passed resembles that to the southward. Some of the hills are covered with wood. The road has been formed, so as to enable artillery to pass; but in some places it is very steep.

Face of the country.

Some troops having formerly been stationed at *Coduwully*, I found at it a cottage which an officer had built. A small street of shops (*Bazar*) had then been established at the place; but, from want of employment, the people have removed. It is situated in *Tamarachery Nada*, a district that formerly belonged to the *Cotayhutty*, or *Pychi Rájá*. In this family the four eldest males assume the title of *Rájá*. The three eldest, like the other *Rájás* of *Malabar*, fled into *Travancore*, to escape from the violence of the late *Sultan*; but the fourth remained behind in defiance of the Mussulman, at times being forced to retire into the woods, and again at times issuing forth with a band of determined *Nairs*, overthrowing the troops of the *Sultan*, and levying contributions to a great extent. On the arrival of the English army, this chief joined them with a considerable body of *Nairs*, and expected perhaps that he would have been favoured in the same manner as the *Coorg Rájá* was. In this, however, he was disappointed. The eldest male of the house, indeed, to avoid disturbance, would not quit *Travancore*; but the two next in succession, and whose claim to the dominions of the house was undoubtedly founded in law, returned, and requested that they might be put on the same footing with the other *Rájás* of *Malabar*, by having the management of the territory that formerly belonged

Cotay-hutty, or *Pychi Rája*.

1800. Dec. 31.

to their family. This was accordingly granted, so far as was practicable, and they are now in quiet possession of the fifth of the revenue in the *Nadas*, or districts of *Curumbara* and *Tamarachery*. This gave great offence to the fourth *Rájá*, who considered himself entitled to the whole, by his seniors having deserted their country, whilst he stood gallantly on the defensive. Besides, he was of a bold ambitious spirit, and nothing would induce him to give up the jurisdiction and sovereignty of an independent prince. Of course he is now in a state of open rebellion, and lives exactly on the same footing with the English that he did with *Tippoo*; and a warfare has ensued, in which our loss has been very great, and the country has been terribly desolated. He is commonly called the *Pychi Rájá*, from a house of that name, which was the principal residence of the family. He is also called the *Cotay-hutty* (*Cotiote*), or *Wynatil Rájá*, from the two districts that are now in his possession. The former is in *Malabar*, and the latter forms a part of *Karnáta* above the *Ghats*, and in our maps is called *Wynaad*. Both parties have been long tired of this destructive war; and some time ago the *Rájá* offered to give up the whole country of which he was in possession, if he should be secured in the independent government of such a portion of the *Wynaad* as would equal in revenue the fifth of his whole territory. This has not been accepted, nor have the military operations been ever carried on with that vigour which the case would require. The breach is too wide to be now closed; and the most vigorous steps would be necessary, as every *Nair* in *Malayala* secretly wishes success to the insurgents.

Population.

From the returns made by Mr. Baber, who has obligingly sent answers to my queries, it would appear, that in the three neighbouring districts of *Kerakum-puram*, *Kudakum-puram* and *Poraway*, or *Polaway*, there are 7,331 houses, inhabited by 26,332 persons, which is at the rate only of $3\frac{67555}{100000}$ to a house. In this I suspect there is some error. Besides, there are 4,765 slaves, making the population in all 31,097, of whom there are

Men adult ..	11,112	
Children ..	4,431	
Males, total ..		15,543
Females adult ..	10,834	
Children	4,481	
Females, total ..		15,315
General total.....		30,858.

It appears to me, that these tables of inhabitants have been made up by the native officers without attention. In twenty-six houses of *Puttar Bráhmans*, for instance, there are stated to be only 20 inhabitants, and these are all male adults. This last circumstance, however, is not impossible; as the *Puttar Bráhmans* here are gene-

Puttar Bráhmans.

rally persons who come from the countries to the eastward, and subsist upon charity; while they occupy one chamber in the house of a *Nair*, whose women administer to all the wants of the sacred man. But farther, as may be seen above, the total of the inhabitants, as stated, does not agree with the amount of the particulars. **1800. Dec. 31.**

The country, in Mr. Baber's opinion, is thinly inhabited, and much of the arable land is unoccupied, especially in the eastern or interior parts of the districts. Owing to the inundations of the *Ellatoor* and *Vaypura* rivers, a considerable quantity of the low rice ground is waste. Mr. Baber having demanded from every proprietor a return of his arable lands, the amount of what they gave in is 49,036 *Porays* sowing of *Paddum* rice, and no hill rice is sown in these districts. Mr. Smee's valuation states the *Porays* of seed required to sow these districts at 88,227; which is probably not over-rated, and which shows how little dependance, in such cases, ought to be put on the assertions of the proprietors. According to Mr. Smee, the soil of these districts is not more productive than the sandy levels near the sea; and the average produce, deducting one-tenth, is $4\frac{6}{8}$ seeds, making the average gross produce rather more than $5\frac{1}{4}$ *Porays* from one *Poray-candum*, or $12\frac{8}{10}$ bushels an acre for each crop; which agrees very well with the statement given by the cultivators at *Calicut*. I am rather surprised, however, at the low average of these three districts under Mr. Baber; as a considerable proportion of them is at distance from the sea, where in general the lands are more fertile. **Rice ground.**

Mr. Baber, in a similar manner, procured an account of the taxable trees raised in the plantations of his districts, which I here contrast with Mr. Smee's estimate. **Plantations.**

	Mr. Baber.		Mr. Smee.	
	Old and young	Bearing.	Exempted.	Taxable.
Coco-nut palms	293,576	153,302	325,958	269,025
Betel-nut ditto	158,440	76,788	266,128	153,848
Jack trees	62,573	19,120	78,832	26,538
Pepper vines	5,038	1,176	5,442	2,617
Brab palms	6,847	3,168		

In the gardens of these districts, as well as in all those toward the south of the province, a considerable number of *Chapingum*, or *Sapan-wood* trees (*Guilandina Sapan*), is reared. This tree affords a good dye; and, as it is exempted from tax, it would appear that no farther encouragement was necessary for raising it. No place would seem to be more favourable for the purpose, as it grows without any **Sapan-wood.**

1800. Dec. 31. care, and water carriage is at hand for its transportation; yet the quantity raised is not great.

Although these districts are separated from the sea by the territory annexed to *Calicut,* yet the low lands near the rivers admit of a considerable quantity of salt being made in them. According to the returns made to Mr. Baber, and which are probably under-rated by at least one-third, there are employed in this way 4,627 *Cannies* of ground. This pays to government 961⅙ *Fanams* a year as land-tax, which is 26*l.* 4*s.* 7*d.* According to the *Vaytuvan's* account, this ground will employ 147 families, and produce 989,000 *Puddies,* or 55,891¼ bushels, worth 32,975 *Fanams,* or 450*l.* 0*s.* 10*d.* Of this sum,

The salt-makers get... ...	*Fanams* 27,865
The owners of the soil ...	... 4,149
The government	... 961

Live stock.

In these districts the live stock, according to the returns made to Mr. Baber, is as follows:

Kinds.	Male.		Female.	
	Young.	Full grown	Young.	Full grown
Large breed of the ox kind	......	56		
Small country breed of ditto	898	4021	2339	4101
Buffaloes	5	113	25	9

This stock is able to work 2000 ploughs, each of which cultivates above 40 *Porays* of seed sowing.

Teak-wood.

Mr. Baber states, that a very considerable quantity of *Teak-wood* is procured annually from a forest called *Tirumunbady;* and that the district of *Poraway* has many young plants of this valuaable tree, but scarcely any fit for cutting. The other produce of the forests is of inconsiderable value; and the whole of the wax and honey is consumed by the natives.

The unhappy disturbances prevailing in the country have put a total stop to the trade with the dominions of the *Rájá* of *Mysore.*

Codda panna, or Corypha umbraculifera.

In the gardens of the middle division of *Malabar* are raised from the seed many of the palms which by the natives are called *Codda Panna* (*Corypha umbraculifera*). The leaves are the most useful part of this palm, and serve for thatch, for umbrellas, and as paper; but by no means correspond with the accounts given by travellers in *Ceylon.* The thatch is reckoned inferior to that of the coco-nut; as it requires to be changed twice a year, whereas the coco-

nut leaves last twelve months. In books this leaf is very durable, **1800.**
and all valuable manuscripts are written on the leaves (*Ollas*) of the Dec. 31.
Codda Panna; those of the *Ampanna*, or *Borassus*, being in this country used only for accompts. Some fine palms of the *Corypha* produce folds five inches wide, and these sell very high. This palm produces annually ten leaves, and flowers at the age of twenty years. Immediately after having ripened its fruit, it dies; but in general it is not permitted to live so long, but is cut down when it is fifteen years old. The pith is beaten, like that of the *Caryota*, and a powder is extracted, which is eaten by all ranks of people. One tree produces 10 *Puddies*, or rather more than 2¼ pecks. It is chiefly used in times of scarcity, that is, between the 14th of July and the 13th of August; for the people are in general so improvident, that every year by this time, their stock of grain is nearly exhausted, and sells for almost double the price that is demanded immediately after harvest.

CHAPTER XIII.

JOURNEY THROUGH THE NORTHERN PART OF MALABAR.

1801. Jan. 1. Inland *Moplays*.

JANUARY 1st, 1801.—In the morning I went nine miles to *Tamarachery*. The country resembles that which I came through yesterday, but much of it is waste. At *Tamarachery* there was a house belonging to the *PychiRájás*; and as it was on the road to one of the principal passes leading up to *Karnáta*, *Tippoo* established in its neighbourhood a strong colony of the ruffian *Moplays;* and, until lately, a constant petty warfare has been continued between them and the *Nairs*. A detachment of *Sepoys* are now in possession of the house, and preserve the peace; but so odious are they to the Mussulmans, who are the only traders in the country, that it is with great difficulty that they can purchase the absolute necessaries of life. The town (*Bazar*) here contains about fifty shops. During the Mussulman government it had good trade; but the rebellion in *Wynaad* has put a stop to all legal commerce. I believe, however, that there is much smuggling.

Rice-ground and land-tax.

Almost the whole of the lands in the *Tamarachery* district now belong to *Moplay* mortgagees (*Canumcars,*) who give nothing to the original lords of the soil. These *Moplays* say, that about one half of their low rice ground (*Dhanmurry)* produces annually two crops, and that the increase in one crop varies from 5 to 10 seeds, which I estimate at from $9\frac{3}{10}$ to $18\frac{6}{10}$ bushels an acre. They say also, that when they sell the rice at the cheap season, in order to pay the land-tax, it requires about three-sixteenths of the produce to enable them to discharge the amount.

Tax on *Parum* land.

Hill-rice, *Ellu* (*Sesamum*), *Shamay* (*Panicum miliare*), and *Pyru* (legumes), are cultivated on the high (*Parum*) land, and pay three-tenths of the produce; which is estimated by the landholder, the native collector, and the *Menon*, or village accomptant.

Slaves.

The daily allowance here established for slaves is of rough rice,

		Cubical inches.		Bushels.
To able bodied men, ...	6 *Nallis* heaped	= $148\frac{1}{2}$,	which is yearly	$25\frac{1}{5}$
To able bodied women ...	6 *Nallis* streaked	= $103\frac{1}{2}$,	ditto	$17\frac{1}{2}$
To old persons and children,	3 *Nallis* heaped	= $74\frac{1}{4}$,	ditto	$12\frac{6}{10}$

The average, allowing one child and one old person to every two men and two women in the prime of age, will be $18\frac{4}{10}$ bushels, of which one half is husks. When the scarcity that usually happens

every year prevails, they get part of their allowance in *Yams* (*Dioscoreas*), *Jacks* (*Artocárpus*), or plantains (*Musa*). When harvest is over, they receive each, according to their activity, a present of 3 or 4 *Porays* of rough rice, or from 1 to $1\frac{4}{10}$ bushels; which will make the annual average about $9\frac{1}{2}$ bushels of rice. Their masters give them also some salt, oil, and pepper, and they are allowed to keep fowls. Each person has annually three pieces of cloth. The slaves say, what indeed cannot be doubted, that they are much better used by their own masters, than when they are let out on mortgage (*Canum*), or hire (*Patum*). 1801. Jan. 1

Customs of the *Poliar*, or *Churmuns* properly so called.

In some parts of the province, *Churmun* is a term applied to slaves in general, whatever their caste may be; but it is in some other parts confined to a peculiar caste, who are also called *Polian*, or in the plural *Poliar*. Even among these wretched creatures the pride of caste has full influence; and if a *Churmun*, or *Polian*, be touched by a slave of the *Parian* tribe, he is defiled, and must wash his head, and pray. The *Poliar* are divided into many different families or clans; but all these can eat together, and intermarry. They have no hereditary chiefs; all the business of the caste is settled in assemblies of their elders. These never excommunicate any person, but they impose fines. The *Poliar*, when they can procure such dainties, eat animal food, and drink spirituous liquors; but they reject carrion. None of them can read. When a *Polian* wishes to marry, he applies to his master, who is bound to defray the expense. He gives 7 *Fanams* to the girl's master, 5 *Fanams* to her parents, 1 *Fanam* worth of cloth to the bride, $1\frac{1}{2}$ *Fanam's* worth of cloth to the bridegroom, and about 10 *Fanams* for the marriage-feast; in all $24\frac{1}{2}$ *Fanams*, or 16*s.* $1\frac{1}{2}$*d.* The ceremony consists in putting a ring on the bride's finger. When a man becomes tired of his wife, and she gives her consent, he may sell her to any other person who will pay back the expense incurred at the marriage. A woman may leave her husband when she pleases. If she chose to go back to the hut of her parents, they and their master must pay back what they received for her; but, if she chose to cohabit with any other man, the whole expense is lost. They are, however, seldom guilty of this injustice. The husband, so long as his wife remains with him, has an undoubted right to give her corporal punishment, should she be unfaithful; but this right is exercised with great discretion, lest she should run away with her paramour. The wife works for her husband's master, who must maintain her and her children until they are able to work: the eldest son then belongs to him, but all the other children belong to their mother's master, and return to the hut of her parents. The goddess worshipped by the *Poliar* is named *Paradevata*, and is represented by a stone, which is placed, in the open air, on a mound like an altar. The priest (*Pujari*) is a *Polian*, and, at a feast celebrated on the commencement of the new year, offers up sacrifices of fowls, fruit, spirituous liquor, &c. If these offerings are omitted, the goddess inflicts sickness; but she

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may be appeased by prayer alone, should the poverty of her votary render him unable to bestow the offerings. The *Poliar* believe, that after death the spirits of mankind exist, and have an influence over human affairs. The spirits of good men are called *Ericapeny*, and those of bad men are called *Culi*. The former are most powerful: but sacrifices and offerings are made to both; to the one for protection, to the other for mercy. These sacrifices and offerings are directed by a person named *Maratan*, or *Caladi*, who, by placing small shells (*Cowries*) in certain positions, pretends to know the spirit to whom the votary ought to address his petition. Although these *Maratans* are slaves, and must work for their masters as usual, the office is hereditary. Their sister's sons succeed to the dignity. Except these, the *Poliars* have nothing like priests, and never give any thing to the *Bráhmans*, nor do they ever pray to the great gods whom that sect worship. Among them they have no *Daseris*, or other such idle vagabonds. Old persons, when they die, are burned; young persons are buried.

Customs of the *Pariar* of *Malayala*.

The *Parian*, or in the plural the *Pariar*, belong to a tribe of *Malayala*, all of whom are slaves. In all the countries where the *Tamul* language prevails, a tribe of the same name is common; but the customs of the two castes are by no means the same. In *Malabar* there are three kinds of this tribe; the *Parian* properly so called, the *Perum Parian* and the *Mutruva Parian*. It is of the first that I here treat. They pretend to be higher than the *Perum Parian*, but acknowledge the superiority of even the *Niadis*. This caste eat carrion, and even beef; so that they are looked upon as equally impure with Mussulmans or Christians; and they may lawfully drink spirituous liquors. Their marriages are similar to those of the *Polian*; but all the children belong to the master of the husband. The deity of this caste is named *Mariti*; and after death the spirits of good men are supposed to become like God, while those of bad men become *Culis*, or devils. There are small temples, or rather huts, in which a stone is placed to represent *Mariti*. Individuals, at an annual festival, present the idol with offerings of fruit, and bloody sacrifices. There is a kind of priest belonging to this tribe. He is called *Velatun Parian*; but is of a different race; of what kind, however, my informants cannot say. He lives at *Cadeaturu*, four miles from hence, is married, and his office is hereditary. He seems to be a juggler, like the *Caladi* of the *Poliar*. When any sickness happens he is consulted, and informs the votary what spirit must be invoked, whether the protection of *Mariti* ought to be solicited, or the wrath of a *Culi* appeased. This he determines by looking at a heap of rice. He also possesses a jurisdiction over the *Parian* in all matters of caste, and punishes all transgressors by fine; but he never proceeds to such an extremity as to excommunicate.

Upucuti.

In the woods here there is a bush, with a pellated leaf, called *Upucuti*. Never having met with the fructification, I have been unable to class it; but it has a strong resemblance in habit to the

Jatropha Curcas. It contains a viscid juice, which is very tenacious when dry, and the natives use it in place of wafers for sealing their letters. 1801. Jan. 1.

2d *January.*—We had a very rainy night. In the morning I went an easy stage to *Walachery Cotay*, where Mr. Coward the collector has an office, and where that gentleman was so obliging as to come and meet me. On the way I crossed a small river, which runs into the sea at *Pynadacara*, and forms the boundary between *Tamarachery* and *Curumbara Nada*. The country through which I passed to-day is naturally fine, and the high lands are not so steep as in most of the inland parts of *Malabar*; but the greater part both of them and of the rice fields is now overgrown with forest trees. Owing to the persecution of the *Hindus* by the late *Sultan*, and to the incessant warfare between them and the *Moplays* of *Tamarachery*, one-fourth of the rice fields in *Curumbara Nada* is estimated to be waste. The inhabitants of *Curumbara* are chiefly *Nairs* and *Tiars*, and live, as usual, in houses which are scattered among their plantations. At *Walachery* there is neither village nor market. Jan. 2. Face of the country.

At no great distance from the office, much iron-ore, resembling that of *Angada-puram*, is found in a hill called *Poicun*. It is smelted exactly in the same manner as already described at *Angada-puram*. A man who smelts it says, that he puts into his furnace 390 *Nallis* of the washed ore, which costs Iron mines.

6 old *Vir'-Raya Fanams*, or $1\frac{1}{2}$ *Bombay Rupee.* Add
6 ditto for charcoal.
4 ditto to four bellows-men.
2 ditto to the man who manages the furnace.
3 ditto for rice for the workmen during the three days that the operation lasts.

21 total expense in old *Fanams*, worth seven-eighths of a new *Fanam*, of which $3\frac{1}{2}$ are equal to a *Madras Rupee.*

The produce of the smelting is 6 *Tulams* of iron, worth 8 or 9 *Fanams* a *Tulam*, or from 48 to 54 *Fanams*. This agrees so well with an account given to Mr. Coward by another person, that it may be considered as accurate. The iron is better than that made at *Angada-puram*. The landlords in general prepare the ore by their own slaves, and sell it to the smelters ready for the furnace. The people who make the charcoal pay a trifle to the landlord for permission to carry on their business.

In *Curumbara Nada*, there are some great farmers, who have 10 ploughs, 20 oxen, 20 male and female slaves, 10 male and female *Tiar* servants, and 25 milch cows. The number of such in the whole district does not exceed ten or twelve, and by far the greater number have only one or two ploughs. Almost all the farmers (*Cudians*) have slaves; they are a very few only that are reduced to the necessity of labouring with their own hands. Size of farms.

Male slaves sell at from 20 to 60 old *Vir'-Raya Fanams*, or from Slaves.

1801. Jan. 2.

9*s.* 6½*d.* to 28*s.* 8*d.*: women sell at only one half of this low price. The difference of caste makes no variation in the value; although the children of different castes are not divided in the same manner. A male slave lets at four *Fanams* a year, and a woman at half as much, the person who hires them providing for their maintenance.

Customs of the *Panian.*

In the parts of this district that are situated toward the frontier of *Wynaad,* live a rude tribe called *Panian.* They dwell in small villages, each [illegible] or five huts, which are called *Madum.* They are not [illegible] or slaves, but are in fact such, and belong to *Tamburans,* or lords, who give them daily subsistence, and exact daily labour, precisely in the same manner, and of the same kind, as is done with slaves. Disputes that happen to arise among them are settled by their masters; who must also furnish money to procure wives for their *Panians.* A wife and the marriage expenses amount to 25 *Fanams.* They take only one wife; but, whenever either party pleases, the marriage may be dissolved; all the children belong to the husband's master. This caste eat all kinds of animal food and carrion, except beef, and may lawfully drink spirituous liquors. They bury the dead without any particular ceremony; and suppose, that after death the spirits of good men become *Culis,* while those of bad men are called *Paynays.* Both these kinds of spirits live in the forests, but give men no sort of trouble, and of course receive no worship. The deity of this caste is called *Cutichatun;* which, among the *Bráhmans* and *Nairs,* signifies a juggler. The *Panian* have no visible representation of their god; but make offerings of rice, coco-nuts, and spirituous liquors, which they place on the ground, and then call upon *Cutichatun* to receive their offering. They afterwards retire to a little distance, and *Cutichatun* is supposed to take what he pleases of the oblation; the remainder is resumed by the votary for his own use. Once a year each man makes such an offering. They have no kind of priest.

Jan. 3. Face of the country.

3d *January.*—I accompanied Mr. Coward to *Nadavanuru,* where he has another office (*Cutchery*). The country naturally resembles that through which I came yesterday; but, being at a greater distance from the inroads of the *Moplays,* it is better cleared and cultivated. The roads are very bad, as is usual in *Malabar,* and in general are narrow paths on the little banks which separate the rice plots. The state of *Malabar* has always been such, that travellers wished to be at a distance from inclosures, or strange houses, which afforded too many lurking places for the assassin. By the way we crossed a river, which runs into the sea at *Ellore,* and which, at all seasons of the year, is navigable for canoes as far up as *Nadavanuru.*

Owing to the heaviness of the rains, the low lands near the *Ghats* of *Tamarachery* and *Curumbara Nada* are overwhelmed with water. On this account a great part of them gives only one crop in the year, and is called *Macrawulla.* The seed for this kind of land

is sown between the 12th of June and the 13th of July, and transplanted in the following month. It is of a particular kind called *Vaydacundum*, that thrives in deep water, and does not ripen until January. It is said to produce only from four to six fold. That ground only which produces two crops in the year is here called *Ubayum*. The seed for the first crop is sown dry-seed between the 11th of April and the 11th of May, and reaped between the 14th of September and the 14th of October. The seed for the second crop is sown between the 14th of July and the 13th of August, and is transplanted as soon as the first crop has been cut. It is reaped between the 12th of January and the 9th of February. The cultivators acknowledge only four or five seeds produce for the first crop, and three or four for the second. The soil is excellent and well watered, but is, no doubt, badly cultivated. One of the native officers of revenue says, that ten seeds may be considered as a good crop, and six as a poor one. This agrees with the account of the *Moplays* at *Tamarachery*; and, making the average produce eight seeds, agrees also with that given by Mr. Smee for the inland districts in the southern division. The seed for an acre being $2\frac{435}{1000}$ bushels, the average produce of one crop will be $19\frac{48}{100}$ bushels; and both crops, after deducting seed, will leave for consumption 34 bushels an acre; which is almost adequate to support two persons, at the allowance granted to the slaves.

1801. **Jan. 3.**

Customs of the Catalun, or Curumbalun.

Another caste of *Malayala*, condemned to slavery, is called in the singular *Catal* or *Curumbal*, and in the plural *Catalun* or *Curumbalun*. They reckon themselves higher than the *Churmun*, *Polian*, or *Parian*. The deity is worshipped by this caste under the name of *Malayadévam*, or the god of the hill, and is represented by a stone placed on a heap of pebbles. This place of worship is on a hill, named *Turuta Malay*, near *Sivapurata*, in *Curumbara Nada*. To this place the *Catalun* annually go, and offer their prayers, coco-nuts, spirituous liquors, and such like, but make no sacrifices, nor have they any kind of priest. They pray chiefly for their own worldly happiness, and for that of their relations. The spirits of good men after death are supposed to have the power of inflicting disease, and are appeased by offerings of distilled and fermented liquors, which the votary drinks after he has called upon the spirit to take such part of them as will pacify his resentment. The dead bodies of good men are burned; but those of bad men, in order to confine their spirits, are buried; for, if these escape, they are supposed to occasion great trouble. It is not customary, however, to make any offerings to these evil spirits. This caste has no hereditary chiefs; but disputes are settled by the elders, who never inflict a severer punishment than a mulct of some *Betel-leaf*. When a *Catal* is about 16 or 18 years of age, he marries. He first obtains the consent of the parents of his mistress, and then applies to his master, who gives him 16 *Fanams*, or 4 *Rupees*. Out of this he gives four *Fanams* to the girl's mother; he purchases a piece of cloth for herself, and

1801. Jan. 3.

with the remainder he gives a marriage feast, which concludes the ceremony. A man turns away his wife whenever he pleases, and she may also desert him whenever she is tired of his company. In either case, she returns to her parents, and waits until she can procure another husband. An occasional slip with a strange man is looked upon as no great matter: sometimes the husband gives his fickle companion a drubbing, and sometimes he turns her away; but in general he bears his misfortune with much patience, being afraid that if his wife left him he should not get another. All the children belong to the mother's master, and of course follow her in case of separation. Until they are able to work, they are maintained at the expense of the husband's master, provided there ensue no dispute violent enough to occasion divorce. This caste eat meat, but decline carrion. They can lawfully drink spirituous liquors.

Jan. 4. The *Waunamars* of *Pyurmalay*; and history of *Malayala*.

4th *January*.—I accompanied Mr. Coward to *Andulay Conday*, in *Pyurmalay*, as it is commonly called; but its proper name is said to be *Eivurmalay*, or the five hills. Here we were met by Captain Osburne, the collector of the adjacent districts. *Eivurmalay* formerly belonged to three *Nair* chiefs, called *Waunamar*, or rulers; and their descendants enjoy the title, with one-fifth of the revenue, in the same manner as do the descendants of the *Rájás*. The tradition here is, that *Cheruman Permal* divided the whole of *Malayala* among four families, who were called *Rájás*; but whose dominions were afterwards subdivided amongst innumerable petty chiefs, and younger branches of the original families. These four families, however, always maintained a superiority of rank, which they at this day retain. They are, the *Coluta-nada Rájá*, commonly called *Cherical*; the *Venatra*, or *Rájá* of *Travancore*; the *Perumburupa*, or *Cochi Rájá*; and the *Ernada*, or *Tamuri*. The dominions of the latter were originally very small. The same story concerning them is told here that was related at *Calicut*. In process of time the *Curumbara* family, who seem to have been a branch descended from the *Cochi Rájás*. seized on a part of *Coluta-nada* which included all the northern parts of *Malayala*. Among other usurpations, this family seized on *Eivurmalay*, of which they were afterwards stript by the ancestors of the three *Waunamar*. Another *Kshatriya* family called *Cotay-hutty* (*Cotiote*), who seem to have been descended from a younger sister of the *Curumbara Rájás*, seized on another portion of *Coluta-nada* lying between *Tellichery* and the *Ghats*. The *Curumbara Nada Rájás* became extinct in the *Malabar* year 954 (1778-1779), five years after *Hyder* invaded the country. As that prince had not then expelled the *Rájás*, the *Cotay-hutty* family laid claim to the country that belonged to their kinsmen. Soon after the elder persons of this house fled to *Travancore*, where they remained until the conquest of the province by the English. On this event they returned, and the eldest then alive was put in immediate possession of *Curumbara Nada*. The Company could not give him the original territory belonging to his family, as it has ever since been in possession of the fourth

Cotay-hutty Rája.

Tamburan of the house, who assumes the title of *Cotay-hutty Rájá*, and is in actual rebellion. The claims of this family to the fifth part of the revenue of *Curumbaru Nada* do not seem to rest on strong grounds; but they have been acknowledged by the Company. 1801. Jan. 4.

Coin supposed to have been made by *Parasu Rama*.

I here procured a ring, in which is set a gold *Fanam*, said to have been struck by *Parasu Rama* when he created *Kérula*. Such *Fanams* are procurable with some difficulty, for they are considered as relics. All other coins fall very short of this in pretensions to antiquity; as, according to the fables of the *Brahmans, Parasu Rama* created *Kerala* above 800,000 years ago.

Face of the country

The country through which I passed this day is nearly like that which I saw yesterday. The rice grounds are extensive, and the hills which enclose them are by no means steep. The cultivation is extremely slovenly, and most of the fields seem to contain as much grass as rice. The roads are execrable.

Estimate of the population of the southern and middle districts of *Malabar*.

Two of the districts under Mr. Coward are included in those valued by Mr. Smee; and two are not: being now, therefore, about to leave the part of the country in which I have received the assistance of that gentleman's industry and abilities, I shall extract from his report, some general statistical observations relative to the southern and middle divisions of *Malabar*, exclusive of the hilly tract which is above *Manar-ghat*. From its appearance on the map, this country, surveyed by Mr. Smee, may contain about 3,300 square British miles; but the maps are as yet so erroneous, that this calculation may be very far from the truth. It requires 1,652,619½ *Porays* of rice seed, and its average produce is 11,910,237 *Porays*; which, deducting seed, leaves 10,257,617½ *Porays* for consumption. A considerable quantity of this is exported from the districts toward the south; but about an equal quantity may be imported in the middle parts of the province. Unfortunately, Mr. Smee, in all his statements, reckons by the common *Poray* of each village, almost all of which are different; so that it is impossible to state with exactness the quantity of seed or produce. The most prevalent *Poray*, especially in the southern districts that produce most rice, contains 9 *Puddies* of $79\frac{875}{1000}$ cubical inches each; and if we take this as the average, we shall have the quantity of seed about 552,560 bushels, and the quantity of consumable produce 3,429,800 bushels; which, at one-ninth of a *Poray* daily for every person, a fair allowance, is adequate to support in plenty a population of 252,924 persons. I have already stated, that Mr. Smee's survey seems not to have included a considerable portion of Mr. Wye's circle; but making every allowance for that, and for many of the inhabitants who live on other food, the population ought not to exceed 330,000, or 100 to a square mile.

Having obtained from Mr. Coward very satisfactory answers to the queries which I proposed to him in writing, I shall unite these to the accounts received on the spot, relative to the situation of the districts which are placed under his management.

1801. Jan. 4. Proportion occupied by different kinds of land.

Mr. Coward, supposing his whole district to be divided into twelve equal portions, estimates, that in *Curumbara Nada*

I. Three parts are *Paddum* field, or low ground, capable of being irrigated and cultivated for rice.

II. Four parts are *Parum*, or high ground, fit for plantations.

III. Three parts are *Parum*, or high ground, partly cultivated with dry grains, and partly over-run with trees and bushes. Much of it fit for plantations.

IV. Two parts are steep, rocky, or so covered with forests, that they could not be reclaimed but at a great expense.

Tamarachery. Four parts are of the first kind.
Four are of the second kind.
Four parts are of the third kind.
Two are of the fourth kind.

Pyenada .. $3\frac{6}{10}$ parts are of the first kind.
$4\frac{8}{10}$ parts are of the second.
$2\frac{4}{10}$ parts are of the third.
$1\frac{2}{10}$ parts is of the fourth.

Eirurmala .. Four parts are of the first kind.
Four parts are of the second.
Two parts are of the third.
Two parts are of the fourth.

Forests.

The forests are of very little value. From *Tamarachery*, about two or three hundred *Teak* trees may be annually procured, and an equal number of the *Viti*, or black-wood. These, with a little *Cassia* and wild ginger, form the only valuable produce of the forests, except as much charcoal as serves to supply with fewel 13 iron forges, and these are not constantly wrought.

Rice-grounds.

The rice grounds Mr. Coward estimates at 65,160 *Porays*; of which 62,266 are *Ubayum*; 1,319, included in the revenue accompts, are now waste; and 1,451 have been so long waste that they are not included in the assessment. This small proportion, of 2,770 waste to 65,160 cultivated, seems to me not at all conformable to the appearance of the country, nor to the accounts of the natives. Mr. Coward thinks the land-tax so high that it impedes agriculture; which in my opinion cannot be by any means the case, at least with the rice grounds. Even allowing the grain to be sold at the cheapest season, the cultivators do not allege that this tax amounts to more than one seed.

Gardens or plantations. Mode of assessment.

The gardens or plantations are taxed by an assessment, which was made partly in the *Malabar* year 969, and partly in 972. The mode said to have been adopted was as follows. An estimate was formed, of what each garden actually produced. From this was deducted, what was considered as a reasonable allowance for the cultivator, and the remainder was called *Patom*, or rent. The average value of this was fixed upon as the amount of the land-tax: as, however, the tax had formerly been imposed by a certain rate for every tree producing fruit, the accompts were made up at so

many fruitful trees, as at the former rate of taxation would amount to the value of the rent (*Patom*). By this it would appear, that, provided the valuation has been made exactly, the interest of the landlords in these plantations was entirely annihilated: this, however, is not alleged to have been the case. In coco-nut gardens, for instance, an allowance of 30 per cent on the gross produce was made on account of worm-eaten nuts; which allowance exceeds the damage, and affords a considerable income to the landlord. How far the allowance made to be cultivator was an adequate reward for his trouble, and for the expense which he incurred in forming the plantation, I cannot say. It is alleged, that it is not even adequate to the former, and that on this account many gardens have been deserted. 1801. Jan. 4.

In the plantations here, according to the account given me by the principal cultivators, there are reared coco-nut and *Betel-nut* palms, pepper vines, and *Jack* trees, that pay revenue to government; and *Mangoes*, plantains, *Yams*, and a little turmeric, ginger, and *Sapan-wood*, that are exempted from taxes. Articles raised in the plantations.

Although this is an inland country, where of course coco-nut palms do not thrive so well as near the sea, yet they occupy by far the greatest part of the high land. This in general is much neglected, and a few coco-nut trees are scattered upon the low parts of the hills, and are surrounded by bushes and weeds without the least attention. When the young seedlings are transplanted, they ought to be manured with salt, ashes, and leaves; and the garden ought afterwards to be ploughed twice a year, once at the beginning, and once at the end of the rainy season. At each ploughing, the manure should be repeated to young trees; old trees require nothing but a few ashes. The trees ought to be planted so that the extremities of their branches may just meet, which will be found to be between 30 and 40 feet from each other. In low grounds, the coco-nut palm begins to give fruit in eight years, and in four years more arrives at perfection, in which state it continues for 20 years. It lives about 100 years, decaying gradually until 70 or 80 years old, after which it annually gives only one or two nuts. On higher soils it does not arrive at perfection until the fifteenth year. The higher the situation, and the poorer the soil, the longer is the tree in coming to perfection, continues a shorter time in vigour, and dies sooner. Good trees, in a good soil, will every month produce a bunch of twenty nuts. The trees, after they have produced nuts two years, are employed for the extraction of palm wine, and yield juice for five seasons. For the next five years the nuts are allowed to ripen; after which, for two or three years more, the juice is again extracted. The *Tiar* pay one *Fanam* a year for every tree, good or bad, from which they are allowed to extract juice. The men who gave me this account did not complain of any loss by their coco-nut trees. Coco-nut.

The pepper raised in Mr. Coward's districts is not very considerable in quantity, as it does not exceed annually 20 *Candies* of 640 lb. The vines that are raised on the *Mango* and *Jack* trees live longest, Black pepper.

1801. Jan. 4.

and produce the most. Those reared on the *Betel-nut* palm, or the *Muruca* (*Erythrina*), are short lived and produce little. Two years ago (*Malabar* year 974), owing to a failure in the usual quantity of water, the pepper crop failed, and a great part of the vines perished. This is very distressing to the owners of the gardens; no new assessment having been made, and the old tax being demanded. Accidents of this kind being frequently unavoidable, is another strong reason why a fixed rate of assessment should not be exacted on a production so uncertain.

Betel-nut, Areca.

In this district *Betel-nut* palms are pretty numerous; but in *Malabar* I no where observed separate plantations of them, such as are to be seen in other parts of India. In *Malabar* they are planted, promiscuously with other trees, in the gardens which surround the houses of the natives. The manner of raising them is as follows: Between the 10th of February and the 11th of March the ripe seed is spread on some straw, in a corner of the house, and is then covered with another layer of straw. This, for 15 months, is once a day sprinkled with water. Between the 12th of May and the 11th of June of the following year a plot of ground is dug, and manured with cow-dung and ashes. In this are placed, at a span's distance from each other, the seeds, which have then sprouted a little. Over the nuts is put as much mould as just covers them; while the sprouts are allowed to project from the earth, and are covered with a layer of leaves and herbs. When there is no rain, they are watered once a day. In two months the leaves and herbs have rotted; the bed must then be freed from weeds. In this nursery the young palms remain from one to two years, and in May and June are transplanted. They are lifted with much earth round their roots, and are placed in pits nine inches deep, and nine inches in diameter; and when they are transplanted, dung is put over them. Over this are placed leaves; and, for two or three years, water must be given once a day when it does not rain. While the trees are young they ought to be manured three times a year, and the garden should be twice hoed. Afterward, two ploughings annually are sufficient. When a plantation is made, in which coco-nut trees are placed at 40 *Adies*, or lengths of the foot, from each other, three *Betel-nut* palms may be set between every pair. If we take 40 *Adies* at 36 feet, an acre would plant 33 coco-nut, and 100 *Betel-nut* palms, and leave interstices for *Mango* and *Jack* trees, on which the pepper vine may be raised: but in *Malabar* such economy of ground is seldom observed. The *Betel-nut* palm begins to bear in from eight to ten years, and in twelve or thirteen arrives at perfection. In this state it continues about twelve years, and then gradually decays until about the fiftieth year, when it dies. Whenever the leaves are observed to wither, and become brown, it is cut. The stem is very useful in building; and the best bows used in the wars of *Malabar* are made of it. The crop season is between the 14th of August and the 14th of October. The average produce of a palm is 300 nuts.

These are delivered to the *Moplay* merchants, as cut from the tree, 1801.
and are by them prepared for the market. In this country the raw Jan. 4.
nuts only are used, but some are boiled for exportation. Three or four months before crop season, the merchants advance the price; and, if the planter be not able to make up the stipulated quantity, he is only bound to return the balance of the advance, without interest. This the merchant can well afford; as, for the thousand nuts, he advances from three to four silver *Fanams*, each worth one-fifth of a *Rupee*; and, when the husk has been removed, sells the produce at the sea coast for from 7 to 8 *Fanams*. In these districts the distance from water carriage is no where great. The land-tax is nominally one gold *Fanam* for every six trees; but the rental was formed in the same manner as was done with the coco-nuts. If for each palm, as here stated, the average produce be 300 nuts, and the price be three *Fanams*, as is the case this year, the produce of six trees would be worth $5\frac{4}{10}$ silver *Fanams*. The land-tax would amount to a little less than $1\frac{34}{100}$ of a silver *Fanam*, being $26\frac{4}{10}$ per cent. of the gross produce. Mr. Smee, however, makes the average produce only 101 nuts. Six palms, at that rate, would only yield 606 nuts, worth $1\frac{8}{10}$ of a silver *Fanam*; so that the land-tax, were it fairly exacted, would consume 79 per cent. of the produce. Although the *Betel-nut* requires much less trouble to bring it to perfection than the coco-nut, and its culture in *Malabar* cannot be considered as attended with any great expense, yet it is a very precarious article, the tree being much more liable to suffer from drought than the coco-nut palm. Two years ago many of them perished; and it is said, that this is the cause why many of the plantations have been altogether deserted; for, no new assessment having been formed, the proprietors would have been obliged to pay the old tax for plantations in which a great part of the pepper and *Betel-nut* had perished.

Garden used as the burying ground.

The *Yams* (*Dioscoreas*), turmeric, and ginger, are raised in the small inclosure which immediately surrounds the house; and which, in *Malabar*, serves as the family burying-ground.

Plantains, or *Musa*.

The plantain, called *Nayndra valay*, is a considerable article of cultivation, especially in the middle division of *Malabar*. It produces a large coarse fruit, like that which in the West Indies is used for bread. The trees are reared on the higher parts of the *Parum* land, and are planted between the 14th of November and the 9th of February. The bushes are previously cut and burned, and the field is dug with the hoe. In seven or eight months the tree produces fruit, and the crop season continues about 120 days. The stems, as they ripen their fruit, are cut, and the suckers are removed to another field. After this plantain, the ground must lie fallow for three years before it is again fit for hill rice, *Ellu* (*Sesamum*), plantains, or any other such articles. The plantains are cut while green, and are dressed in various ways, to eat with rice; but they never form the common article of diet here, as they do in the West Indies. This fruit is not taxed by government.

1801. Jan. 4. Salt.

In Mr. Coward's district there are 111 fields for making salt. These contain 3335 *Cannies,* or evaporating plots; which, according to the manufacturer's estimate that I procured at *Calicut,* should employ 83 families of salt makers, and produce annually 31,740 bushels of salt. Formerly, about a third more ground was employed in this way; and Mr. Coward thinks that the manufacture might be very much increased, there being in his districts a great deal of ground fit for the purpose.

Commerce.

The exports and imports, by sea and land, from and into Mr. Coward's districts in the *Malabar* year 975, ending the 13th September 1800, will be seen by the Tables in the APPENDIX at the end; which were extracted from the custom-house accompts.

Population.

The houses in Mr. Coward's districts amount to 11,549, of which

142 are inhabited by *Namburis,*
53 by *Puttar Bráhmans,*
4876 by *Nairs,*
2485 by *Moplays,*
1981 by *Tiars,*
2012 by various castes.

The slaves are:

Males	under 15 years of age... ...	1296		
	capable of labour...	2679		
	old and infirm	509		
		——	Males	4484
Females	under 15 years of age ...	1121		
	capable of labour	2534		
	old and infirm...	453		
		——	Females	4108
			Total slaves ...	8592

The number of inhabitants are:

Men	16,644
Women	17,222
	33,866
Deduct slaves	8,592
Remainder of free persons	25,274

If we divide these by the number of houses, we shall find that, on an average, each contains but a very little more than two persons; which seems to me inexplicable. The quantity of rice that is raised in the country is by no means adequate to the consumption of the inhabitants; and grain is imported, both by sea, and from the country above the *Ghats.*

The number of ploughs amounts to 3137. 1801. Jan. 4. Stock.

The animals of the ox kind are as follow:

Carriage oxen	481	
Plough oxen	4906	
Male calves.	2488	
		8885
Cows.	7036	
Cow calves.	3124	
		10,160
Total of ox kind... ...		18,945
Buffaloes:		
Males, full grown	719	
young	164	
		883
Females, full grown.	397	
young	130	
		527
Total buffaloes... ...		1410

The great proportion of male buffaloes is owing to importation from above the *Ghats*.

In these districts the weaver's looms are 281, which are not adequate to supply the wants of the inhabitants, of whom all the higher orders are clothed with foreign manufactures. Manufactures.

5th *January*.—Having taken leave of Mr. Coward, I accompanied Captain Osburne to *Kutiporam*. This was a long stage, and owing to the badness of the roads, was very fatiguing. [illegible]er *Kutiporam* there is no village; but it is the principal res[illegible]e of the *Cadutinada Rájá*, commonly called the *Rájá* of *Carth[illegible]aad*. This chief is an active man, in the vigour of life; and, having much influence among the *Nairs*, it has been thought expedient to allow him to collect the revenues of the country that formerly belonged to his ancestors. Hitherto he has faithfully discharged this trust; but his influence renders the power of the magistrate very trifling, either in matters of police or in judicial affairs. In fact, the *Rájá* is now, what all the others wish to be; he pays a tribute to the Company, and will continue to do so regularly, so long as he is afraid of their power, or requires their protection; but he has absolute authority in his dominions, and, I am told, exercises it without much attention to justice. Jan. 5. Cadutinada Rájá.

The revenues are collected by a late valuation, which was formed upon the supposed actual produce. One-third of this was allowed to the farmer (*Cudian*); of the remainder six-tenths were taken for the land-tax, and four-tenths were allowed to the landholder. Revenue.

Eyvurmalay is separated from *Cadutinada* by a fine river, which at all seasons is navigable up to *Caipert*, a little below the line of my route. From *Anduley-Conday* to this river, the country through Face of the country.

1801. Jan. 5. which I passed is in a bad state. The greater number of the rice fields seem to be waste, and much of the higher land is overgrown with trees or long grass. *Cadutinada* is better cultivated, and is naturally a rich country, containing a large proportion of rice ground; but the grain produced in it is not adequate to the consumption of the inhabitants; and an importation takes place both from the southern parts of *Malayala*, and from *Mangalore*. The plantations are very numerous, and tolerably well kept. The higher parts of the hills are much overgrown with wood; which the *Nairs* encourage, as affording them protection against invaders.

Cardamoms. In the hills which form the lower part of the *Ghats* in *Cadutinada*, and other northern districts of *Malayala*, are certain places that naturally produce cardamoms. The following is the account of these, which the most intelligent persons here gave; for the state of the country at present does not admit of my getting an account on the spot. These hills are all private property; and the places that are favourable for cardamoms are thickly covered with bushes, and contain many springs and little streams of water. Such places having been searched, and some scattered plants of the cardamom having been found, between the 10th of February and the 10th of April all the bushes and some of the large trees are cut down, so as to cover the ground with branches. In the rainy season many cardamom plants spring up to about nine inches in height. Next year between the 12th of May and the 11th of June, all the bushes that have sprung up are again cut. During the rainy season of this year the plants grow one cubit high. In the third year, at the same season, the bushes are again cut, and the plants become two cubits high. They flower a[illegible] the time when the bushes are cut, and between the 14th of Septem[illegible]nd the 13th of November, produce a very small crop. In the fourth year the bushes are again cut; and, where the cardamom plants happen to grow too near one another, they are removed to proper distances at the flowering season. This year they are about three cubits high, and produce a full crop. When two or three capsules on each spike are ripe, the proper time for cutting has arrived; and the fruit stalk (*scapus*), which comes out from the ground near the stem that supports the leaves, is cut close to the earth. All those which are cut in one day are removed to a hut, where the capsules that are not quite ripe are picked off from the spikes. If allowed to be quite ripe, they are immediately eaten up by a kind of squirrel, called *Malay Anacota*. It is supposed, that the seed, which passes through this animal as it leaps about, is the means by which the plant is scattered throughout the country, and grows wherever there is a favourable soil. The capsules, having been collected from the fruit stalks, are for three days and nights exposed in the open air, to receive the sun and dew. They are spread very thin on the ground, which is purposely cleared, and made smooth and firm by beating. After this, for seven days, the capsules are exposed on mats to the sun, and at night are removed

into the house. When perfectly dry, the capsules are rubbed on a 1801.
mat, to break off the short foot-stalks by which they adhered to the Jan. 5.
stem, and which are separated by fanning. The cardamoms are then put in bags, and brought home for sale. One of the mortgagees (*Canumcars*), who gave me this account, and who is the proprietor of a hill which produces cardamoms, says, that he has been in the *Wynaad*, and has seen the process used in that country; which is quite the same with that just now described, only there the gathering season is later, and commences as the season here ends. The soil proper for cardamoms is black and moist, and strongly impregnated with rotten leaves. Coolness seems also to be a requisite quality, as it grows only on hills of considerable height. The superior height of the *Wynaad* is probably the reason that its cardamoms are better than those of *Cadutinada*. The difference is so obvious, that any person, who is at all acquainted with cardamoms, can tell from which of the two countries a parcel has been brought. The cardamoms of *Wynaad* are shorter, fuller of seed, and whiter, than those of *Malabar*, and sell for about 100 *Rupees* a *Candy* more. The annual produce of *Wynaad* is from 50 to 100 *Candies* of 560 pounds each; that of *Cadutinada* is from 1 to 3 *Candies*. In *Cutiady*, also below the *Ghats*, in a country now in possession of the *Pychi Rája*, five hills produce annually about a *Candy* and a half.

Here, as well as in all the hills of *Malabar*, the *Cassia lignea* is Cassia lignea.
very common. It is the same with the *Lavanga* of *Ani-malaya*, and is greatly inferior to the *Cassia* of *China*. The tree has a strong resemblance to the *Tezpat* of Bengal; but not having seen the flowers, I cannot determine how far they agree or differ in species. It is, no doubt, the *Laurus Cassia* of Linnæus.

Having procured some of the principal *Nairs* that attended on the *Raja* in a visit which he made to Captain Osburne, and a sensible *Namburi* who seemed to be much in favour with that chief, I consulted them on the differences that obtain in the customs of the Customs of the
Nairs who live north from the *Vay-pura* river, from those that are northern Nairs.
observed in the southern parts of *Malayala*. The female *Nairs*, while children, go through the ceremony of marriage, both with *Namburis* and *Nairs*; but here, as well as in the south, the man and wife never cohabit. When the girl has come to maturity, she is taken to live in the house of some *Namburi* or *Nair*; and after she has given her consent to do so, she cannot leave her keeper; but, in case of infidelity to his bed, may be punished with death. If her keeper have in his family no mother nor sister, his mistress manages the household affairs. The keeper, whenever he pleases, may send his mistress back to her mother's house; but then, if she can, she may procure another lover. A man's house is managed by his mother so long as she lives. When she dies, his sister comes for the fifteen days of mourning. She afterwards returns to her lover, and remains with him until he either dies or turns her away.

1801. Jan. 5.

In either case, she returns to her brother's house, of which she resumes the management, and brings with her all her children, who are her brother's heirs. A *Nair* here is not astonished when you ask him who his father was; and a man has as much certainty that the children born in his house are his own, as an European husband has; while these children are rendered dear to him by their own caresses, and those of their mother, who is always beloved, for otherwise she would be immediately dismissed; yet such is the perversity of custom, that a man would be considered as unnatural, were he to have as much affection for his own children, as for those of his sister, which he may perhaps never have seen. Of all known manners of conducting the intercourse between the sexes, this seems to be the most absurd and inconvenient. That prevailing in the southern parts of *Malayala* avoids all the domestic unhappiness arising from jealousy, or want of continued affection; but that here, while it has none of the benefits of marriage, is attended with all its evils. The division of *Nairs* here is also different from that in the south. There are here six tribes, who by birth are all properly soldiers. The first in rank are the *Adiodi*; the next are the *Nambirs*; and then follow four tribes of equal dignity, the *Shelatun*, the *Cureuru*, the *Nalavan*, and the *Venapulun*. After these, as in the south, follow the different tribes of traders or artists, who, although allowed to be *Nairs*, and true *Sudras*, are not entitled to the dignity of bearing arms.

Jan. 6. *Face of the country.*

6th *January*.—I accompanied Captain Osburne to his house at *Vadacurray*, which by Europeans is commonly called *Barragurry*. The road, although not quite so bad as that through which I came yesterday, was very inconvenient for a palanquin, or loaded cattle. The country resembles the other interior parts of *Malabar*, and the little hills and narrow vallies extend close to the sea side.

Fears of the women in the north of Malabar.

For some days back, when I passed through among the gardens near houses, I have observed the women squatting down behind the mud walls, in order to satisfy their curiosity by viewing a stranger. When they thought that I observed them, they ran away in a fright. This does not arise from the rules of caste in *Malabar* requiring the *Hindu* women to be confined, for that is by no means the case; but in the interior parts of North *Malabar*, the *Nairs*, being at enmity with Europeans, have persuaded the women, that we are a kind of hobgoblins who have long tails, in order to conceal which we wear breaches (*et qui insuper ut canes in coitu cum feminis cohœrent*). The women and children therefore are much afraid whenever a European appears, which indeed seldom happens. In the southern division, and on the sea coast, we are too well known to occasion any alarm.

Vadacurray or Barragurry.

Vadacurray is a *Moplay* town, on the sea side, at the north end of a long inland navigation, running parallel to the coast, and communicating with the *Cotta* river and some others. From this circumstance the name of the town is derived. It signifies the

north-side. The town is a pretty considerable place, and, like the other *Moplay* town in *Malabar*, is comparatively well built. On the hill above it is a neat little fort, which was constructed by one of the former chiefs of the country, and is now in the possession of the *Cadutinada Rájá*, who has sense enough to perceive that it does not add to his power, and therefore allows it to be in a ruinous state. **1801. Jan. 6**

Before the *Malabar* year 740, or 156¼ of our era, the ancestors of this chief were *Nairs* of distinction, who then, taking advantage of the weak state of the *Colata Nada*, or *Cherical Rájas*, seized on *Cadutinada*, assumed the title of independent *Rajas*, and, until the Mussulman invasion, exercised the power of sovereign princes. Since the country has fallen into the hands of the English, their title has been allowed, and the present head of the family is in actual possession of almost absolute power. It is owing to this circumstance, I suppose, that I received no answer from Captain Osburne to the queries which I proposed in writing. *Cadutinada Rája's family*

In the *Malabar* year 964, or 178⁸⁄₉, the *Sultan* established a monopoly for all the goods that are usually exported from *Malabar*. The principal *Cotay*, or factory, was placed here; and other dependent ones were established at different parts of the coast, such as *Máhé, Coilandy, Calicut*, &c. &c. At any of these factories, the goods were received at a certain fixed rate, and paid for by the government, and were afterwards sold by the factors, on its account, to any person who chose to export them. The price fixed on the goods at delivery was low. The factors, for instance, gave 100 *Rupees* a *Candy* for pepper, and sold it for from 150 to 170. The consequence of this was, that the small vessels belonging to the coast were totally given up; and the trade fell entirely into the hands of strangers. Since the trade has been laid open, two vessels only have been built here, and the produce of the country is chiefly exported in vessels coming from *Muscat, Cutch, Surat, Bombay, Goa*, and *Mangalore*. The merchants here purchase the cargoes imported by these vessels, and furnish them with others by wholesale. *A monopoly established by the Sultan*

The account which the merchants here give of their manner of dealing with the owners of plantations, as may be naturally expected, differs very essentially from that which I procured in the interior of the province. This last was confirmed by Mr. Wye, a most intelligent gentleman; but I must state what the merchants say. They make the advances to the proprietor, five or six months before the time of delivery, at the rate of 5 or 5½ *Rupees* a *Tulam*, when the selling price is about 7 *Rupees*; so that their profit is from 21³⁄₇ to 28⁴⁄₇ per cent. They deny that they require the cultivator to make up any deficiencies in his delivery at the market price. When any deficiency happens, they consent to take the same quantity next year, and thus lose a year's interest. *Pepper trade*

7th *January*.—In the morning I went about seven miles to *Mahé*, which formerly belonged to the French. It is finely situated, **Jan. 7** *Mahe*

1801 Jan. 8–10.

from $4\frac{5}{8}$ to $9\frac{1}{4}$ bushels an acre. The seed of the pulse is one-eighth part of that of the rice, or for an acre a little more than three-tenths of a bushel. The produce is from four to ten seeds, or from $1\frac{2}{10}$ to 3 bushels an acre; and frequently vermin entirely destroy the crop.

There is a here kind of rice called *Cutadun*, or *Orcutadun*, that grows near rivers which are impregnated with salt. * Ground that is fit for this kind of rice is called *Caicundum*. If the rains are copious, this produces 15 seeds, or $36\frac{1}{2}$ bushels an acre; but, if the rains are too slight, the excess of salt kills the rice. On account of the repairs that are necessary to be made on the banks which keep out the tide, and which are very liable to be destroyed by rat-holes, the rent (*Vàrum*) of this ground is only two seeds, or $4\frac{5}{8}$ bushels an acre. It produces no pulse, and only one crop of rice annually.

Ponna land. The hill-lands that have been cleared are called *Parumba*, as in the south; but there are certain hills that are covered with woods and bushes, and called *Ponna*. The natural produce of these is of no value; but once in ten years the bushes are cut and burned. The ground is then hoed, and sown with a kind of rice called *Coi-willa;* along with which are intermixed some *Tovary* (*Cytisus cajan*) and cotton. In fact, this cultivation is the same with the *Cotu Cadu* of *Mysore;* and is said to be that which is chiefly used in the interior parts of *Cherical* and *Cotay-hutty;* that is to say, in the northern parts of *Malayala*, where the cultivation of the vallies is much neglected. This kind of land pays four-tenths of the produce as rent (*Varum*), of which one half is equal to the (*Negadi*) land-tax.

Modun, or hill-rice. The accounts which Sr. Rodriguez gave, and those transmitted by Mr. Strachy, differ wonderfully. Mr. Strachy says, that in *Tellichery* no *Modun* rice is cultivated; while Sr. Rodriguez says, that the (*Parumba*) high land annually produces a crop of this grain, and that the soil would be ruined were it allowed to lie fallow, as is done to the southward. The abundance of manure procurable at *Tellichery* seems to be the reason of this difference. In December or January the *Parumba* land is ploughed thrice. In the beginning of the rainy season it is ploughed a fourth time, sown, and then ploughed twice more. Before the seed is sown it is manured. This ground pays as rent (*Varum*) one-fifth of the produce.

Plantations. Mr. Strachy says, that, under the trees of plantations, a kind of rice called *Wainoky* is sown, and, together with it, *Ellu* (*Sesamum*), *Pyro* (legumes), and *Shamay* (*Panicum miliare*). Of this circumstance I heard nothing while on the spot.

Mr. Strachy thinks, that in *Tellichery* plantations occupy one half of the high (*Parum*) land; in *Durmapatam* one-fourth; and in *Mahe* one-third.

Black pepper, *Piper nigrum*. The cultivation of pepper being much more extensive in the northern parts of *Malabar*, than in the middle or southern divisions, with the assistance of Sr. Rodriguez I took the following account of it from some of the chief (*Canumcars*) tenants.

Cultivation. The pepper vines are raised on a great variety of trees; but

the one in most common use is the *Murica*, or the *Erythrina Indica*, Lamarck. It would grow equally well on the *Mango* (*Mangifera indica*) or *Jack* (*Artocarpus integrifolia*); but these require a long time to come forward. The manner of forming a plantation of pepper, upon the *Murica*, is as follows. The ground is fenced with a mud wall, and must be levelled into terraces, if that has not previously been performed. Between the 14th of July and the 13th of November, dig the ground with a hoe, and set in plantain trees, at the distance, from each other, of 12 *Adies*, or lengths of the foot. Then between the 10th of February and the 11th of March, at 60 *Adies* from each other, plant branches of the *Murica*. These branches should be from 6 to 12 feet long; and, until the commencement of the rainy season, they must be watered. Between the 11th of May and the 10th of June the vines are planted: of doing which there are two ways. Some people take 6 or 7 cuttings, each a cubit in length, and put them in a basket, with their upper end sloping toward the tree. The basket is then filled with earth, and buried in the ground at the foot of the tree. Between the 14th of October and the 15th of November the earth round the basket is dug; and, as a manure, dry leaves and cow-dung are put round the vines. Some people, again, plant the cuttings round the tree without any basket. It is said, that the basket prevents many accidents to which the young shoots are liable; so that of those which have this protection much fewer die, than of those which have it not. Whichever manner of planting the shoots may have been adopted, there is no difference in the after-management. During the dry season, for three years after planting, the vines must be watered, in favourable soils once in three days, in dry soils every other day. Between the middle of October and that of November they must be manured, and tied up to the tree until they be six feet high, after which they are able to support themselves. After the third year the plantains are dug up; and twice a year, from the 14th of October to the 15th of November, and from the 14th of July to the 13th of August, the whole plantation must be hoed, and dry leaves put as a manure round the roots of the vines. In four or five years the vines begin to produce pepper; in the sixth or seventh year they yield a full crop, and continue to do so for twelve or fourteen years, when the *Murica* dies, and must be replaced by a new branch and new vines.

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The pepper may be cultivated, exactly in the same manner, against branches of the *Canyara*, *Ambai*, and *Pula*.

The *Canyara* is the *Strychnos nux vomica* of Linnæus, which in *Malabar* is one of the most common trees. Its branches are apt to fail striking root. If raised from the seed, it will live to a great age, and thrive on any soil; but it requires eight years to arrive at such a size as to be fit for supporting the pepper vine.

Nux vomica.

Having never seen the flower, I do not know to what genus the *Ambai* should be referred. It is reckoned the worst of any tree used for supporting the pepper vine. On its bark it has many knots, that

Tree called *Ambai*.

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on a high ground, on the south side of a river where that enters the sea. The river is navigable with boats for a considerable way inland; and, in fair weather, small craft can with great safety pass over the bar. The place has been neat, and many of the houses are good. Although the situation is certainly better than that of *Tellichery*, yet I think it has not been judicious to remove the commercial resident from that place, while a possibility remains of *Mahé* being restored to the French. In the mean time *Tellichery* will suffer greatly; and I know, from having been there formerly, that during all the fair monsoon, goods may be landed and shipped there with great facility.

Having been disappointed in not finding the commercial resident at home, in the afternoon I went about four miles to *Tellichery*, and was most hospitably received by my friend Mr. Waddel, who had lately come to reside in the fort, or factory.

Appearance of the country.

After entering the lines within which the natives have long enjoyed the protection of an English government, a wonderful change for the better appears in the face of the country; and the thriving state of the plantations, on the sandy grounds near the sea, show how capable of improvement all the land of that kind in the province really is. The low hills however, all the way between *Vadacurry* and *Tellichery*, approach very near the sea, and leave for plantations a much narrower level than is found in the southern parts of the province.

Jan. 8—10. *Tellichery.*

8th—10th *January*.—I remained at *Tellichery*, taking an account of the neighbouring country. This having been long the chief settlement of the English on the coast of *Malabar*, and having been now deserted by the Company's commerce, has been rather on the decline; but still the richest natives on the coast reside here, and the inhabitants are by far more civilized than in any other part of the province. They enjoy some particular privileges, especially that of being more moderately taxed than their neighbours.

Native Portuguese.

The Portuguese inhabitants, who found here an asylum, when by the violence of the *Sultan* they were driven from the rest of the province, have for twelve or fourteen days been embodied as a militia. They seem to be very fond of military parade, and have already made some progress in their exercises. It appears to me, that they would look very well, and soon become good soldiers, had they decent clothing and accoutrements; but nothing can be more motley or ridiculous than their present undress, for clothing it cannot be called.

Mr. Strachy's circle.

Tellichery, *Mahé*, and *Durmapatam* (*Dharma-pattana*), form a circle under the management of Mr. Strachy, a very promising young gentleman. In the following account, I shall avail myself of the written answers to my queries which he has been so good as to forward.

State of cultivation.

Mr. Strachy justly considers, that the whole of his circle might be cultivated, either for grain or with fruit trees. No measurement

having been made, Mr. Strachy does not venture to estimate the proportion of rice-land to that of high ground, nor to state the quantity of either that is actually under culture The revenue accompts mention only the neat produce coming in to the landlord for his rice-lands, and this affords no data for calculating the extent. Almost the whole of the rice-lands (*Dhanmurry*) mentioned in the revenue books are cultivated; but there are some lands now covered with grass or bushes that might be converted into rice fields. In the *Tellichery* district a large extent of rice ground has been overflowed by the sea. It might be again recovered by forming banks; or, with an additional expense, might be converted into land for making salt, of which a great deal is at present imported.

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Cultivation of rice ground.

Sr. Rodriguez, a Portuguese, and the principal land-holder (*Canumcar*) at *Tellichery*, gives me the following account of the cultivation of rice. What he says may be depended on as correct. The low rice ground (*Dhanmurry*) is here called *Candum*, *Vailu*, or *Ulpatti*, and is entirely watered by the rain. In the rainy season, none of it is so much overflowed, as to be then unfit for cultivation. The greater part gives only one crop of rice in the year. This is cut between the 14th of September and the 14th of October. Some part gives a second crop of rice, which is reaped between the 12th of January and the 9th of February. After the second crop, the field may be sown with pulse; or, if the first crop only be taken, it will in the same year produce two crops of pulse; but they are industrious farmers (*Cudians*) only, who take the trouble. The greater part are contented with one crop. The ploughings, when two crops of rice are taken, amount to seven; and to five, when one crop is taken. The crops of pulse do not add to the number of ploughings; as that which is given when they are sown serves also for the following crop of rice. At the season for sowing the pulse, the field must be ploughed three times, and twice for each crop of rice. Leaves are not used as a manure. To increase its quantity, some farmers mix the straw of the pulses with the cow-dung; others burn it to procure a greater quantity of ashes.

Between the 14th of September and the 14th of October the field is manured with fresh cow-dung; between the 12th of January and the 9th of February with ashes; and between the 12th days of May and June with dry-dung and ashes. The fields are not inclosed. Those which annually give only one crop of rice produce from four to seven seeds; which, taking the *Poray-candum* at the *Chowgaut* standard, will make from 9¼ to 17 bushels an acre. When this land produces four seeds, it gives to the proprietor one seed as *Varum*, or rack rent; when it produces five or six, it gives 1½; and when it produces seven seeds, it gives two. The pulse pays no rent (*Varum*). In ground producing two crops, the produce, according to the soil in the early crop, varies from five to ten seeds, or from 12⅛ bushels to 24 an acre; in the late crop, from three to five seeds, or from $7\frac{3}{10}$ to 12⅛ bushels an acre. The rent (*Varum*) varies from two to four seeds, or

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prevent the vine from adhering, for this plant grows up like ivy. The *Ambai* grows from seed very slowly, but it lives long.

Bombaz.

The *Pala* is a *Bombax caule aculeato, foliolis septenis.* Sometimes the branches are planted, and at others the seed is sown. In this case, before the vine can be planted, it requires six or seven years to grow, but it lives long.

Once a year all these trees are pruned, the side branches being lopped.

Jack and Mango trees.

Jack (*Artocarpus integrifolia*) and *Mango* (*Mangifera indica*) trees are not much used here, being too slow of growth; but the pepper raised on them is equal, both in quantity and quality, to that raised on the *Murica* (*Erythrina*). The *Mango* thrives very well while it supports the pepper vine, but the quantity of *Jack* fruit is diminished. These trees are never pruned; but, if they support the pepper vine, their leaves are thinned.

Collecting the pepper.

The pepper vine is liable to be killed by drought, or by hot winds. Between the 12th of May and the 11th of June they flower, and between the 12th of January and the 9th of February the fruit is fit for gathering. The berries are not then ripe; but they are full grown, and hard. The men who collect it go up ladders, and with their fingers twist off the *Amenta*, or strings of berries. They collect the fruit in a bag or basket, and, having placed it on the ground, rub it with their feet, to separate the berries from the *Amenta*. The bad grains or berries having been thrown away, the good ones are dried on mats, or on a piece of ground purposely made smooth. For three days they are spread out to the sun; but every night are gathered, and taken into the house. The drying on mats is by far the best manner; as 15 *Edangallies*, dried in that way, will weigh a *Tulam* or *Maund*; while 16 *Edangallies*, dried on the ground, will weigh no more. A man can daily pick from the tree, and cure, from 15 to 20 *Edangallies*, according to the abundance of the crop. A man will therefore, on an average, reap half a *Tulam* a day; and, as the drying and rubbing out of the grains is frequently performed by children, with their assistance he may collect one *Tulam*. A prudent man, who does not receive advances for his pepper, can sell it at from 5 to 8 *Rupees* a *Tulam*, or from 100 to 160 *Rupees* a *Candy* of 640 lb. Last year they got 6 *Rupees*. As a man's wages cannot, at the utmost, be estimated at more than a quarter of a *Rupee*, the expense of harvest cannot possibly exceed one-twelfth of the value of the pepper.

Purchase by the merchants.

Those proprietors who require advances six months before delivery, never get more than sixteen *Fanams*, or $3\frac{1}{5}$ *Rupees*. If they receive the advance four months before delivery, they can get eighteen silver *Fanams*, or $3\frac{3}{5}$ *Rupees*: so that the merchant, this year, for six months advance, had $87\frac{1}{2}$ per cent. profit, and for four months advance a profit of $66\frac{2}{3}$ per cent. In the bond it is declared, that if there be any deficiency in the delivery, it must be repaid at the market price. If the owner of the plantation be not able to pay this, as indeed

must be almost always the case, he in the first place gets abusive language from the merchant, and is then obliged to give a fresh bond with interest, to be paid in rough rice, at the rate of an *Edangally* for every silver *Fanam*, which is at the annual rate of 20⅓ per cent. Some easy merchants are contented with an interest of 10 or 12 per cent. in cash. This bond contains a mortgage, either on the borrower's plantations or on his rice ground; and by the forfeiture of such bonds a large proportion of the landed property has fallen into the hands of the *Moplays*. **1801. Jan. 8–10.**

Yams and other roots, greens, and vegetables for family use, are raised in the pepper plantations. The stem of the *Yam* (*Dioscorea*) is always allowed to climb upon fruit (*Jack* or *Mango*) trees; the natives having a fancy that, in order to procure large roots, it is necessary to have a large supporter for the stem. **Kitchen gardens**

The following is the manner in which the landlords (*Jenmcars*) here let their plantations. When a landlord delivers over the plantation to the farmer (*Cudian*), an estimate is formed of the real produce of the *Nall Ubayum*, or of the four kinds of taxable trees. The coco-nuts are valued at 10 *Rupees* a thousand, the *Betel-nuts* at two-fifths of a *Rupee* a thousand, the *Jack* fruit at two *Rupees* a hundred, and the pepper at four *Rupees* the *Talam* or *Maund*. Out of this the landlord (*Jenmcar*) makes an allowance for keeping up the fences. The remainder is the *Patom*, out of which the land-tax is paid. This estimate is written in the *Patom muri*, or *Patom olla*, that is to say, the lease, which stands good for four or five years, and then a new inspection is made. It is evident, that the only land-tax which could with justice be collected on plantations, ought to rest on a similar repeated inspection: which can never be done by any extensive government without either most enormous defalcations, or without incurring an enormous expense. The consequence of this manner of levying a tax is, that, the valuations being seldom made, the tax becomes very unequal. Some plantations, having been by accident increased, pay very little; while others, having met with injurious accidents, become of no value, and are entirely deserted. By this means it is alleged, that, ever since the land-tax has been imposed, the plantations have been in a gradual state of decay. **Manner of leasing plantations.**

The natives would be very desirous of paying their tax in pepper, at 120 *Rupees* a *Candy* of 640 lbs., which is considerably cheaper than the price that the Company has usually given for it. They would be very unwilling to pay any tax on garden ground by measurement.

The farmers (*Cudians*), whether cultivating rice ground or plantations, according to Mr. Rodriguez, live very poorly, although they get almost four-fifths of the grain, and at least one-third of the produce of the taxable trees. They mostly labour with their own hands, there being few slaves. The hired servants, who are chiefly *Tiars*, work only from half-past six in the morning until noon, and get as daily wages 2½ *Edangallies* of rough rice. All the afternoon **State of the cultivators.**

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they labour for themselves. The *Edangally* containing 108 cubical inches, a man by half a day's work, allowing one-seventh of his time for holy days, can gain 39¼ bushels of grain. Although the *Cudians* may therefore live in a very inferior condition to an English farmer, it is impossible that they should live scantily: while a day labourer by working only half of the day, can procure so much grain.

Tax on riceland.

The *Negadi*, or tax on the rice lands, amounts here to 25 per cent. of the *Varum*, or rent. All that the Company exacted at first was ten per cent.: but while Mr. Boddam was chief, the Company, finding the expense of their establishment heavy, proposed to reduce it to a mere factory, and to allow the inhabitants to defend themselves in the best manner they could. On this, the people, terrified at becoming subject to a native authority, consented to give 25 per cent.; and during a siege that ensued soon after, assisted with great courage in the defence of the lines; for the regular troops were a mere handful.

Plantations.

The following is the return of the plantations under Mr. Strachy.

	Productive.	Not productive.	Total.
Coco-nut palms.........	42,903	32,230	75,133
Betel-nut palms........	6,594	14,270	20,864
Jack trees................	3,306	5,755	9,061
Pepper vines.............	7,930	9,599	17,529

Stock.

The stock of animals in these three districts is as follows:

Animals of the ox kind:

Cows....................................	1126	
Oxen....................................	1192	
Calves..................................	812	
		3130

Buffaloes:

Male....................................	29	
Female..................................	59	
Young...................................	8	
		96

The ploughs are 410; for which there are 1221 working cattle.

The Slaves are,

Males, young............................	38	
working..................................	36	
old...	17	
		91
Females, young.........................	28	
working..................................	33	
old...	9	
		70
Total......		161

The houses are 4481. 1801. Jan. 8—10. Freemen.

Of which there are inhabited,

By Portuguese	438
Mussulmans	868
Namburis	9
Puttar Brahmans	16
Rajas	2
Nairs	276
Tiars	1888
Mucuas	258
Natives of *Karnata*	119

Customs of the *Mucuas.*

The *Mucua*, or in the plural *Mucuar*, are a tribe who live near the sea-coast of *Malayala*, to the inland parts of which they seldom go, and beyond its limits any way they rarely venture. Their proper business is that of fishermen, or palanquin-bearers for persons of low birth, or of no caste; but they serve also as boatmen. The utmost distance to which they will venture on a voyage is to *Mangulore*, which is between twenty and thirty miles beyond the boundary of their beloved country. In some places they cultivate the coco-nut. In the southern parts of the province most of them have become Mussulmans, but continue to follow their usual occupations. These are held in the utmost contempt by those of the north, who have given up all communication with the apostates. Those here do not pretend to be *Súdras*, and readily acknowledge the superior dignity of the *Tiars*. They have hereditary chiefs called *Arayn*, who settle disputes, and, with the assistance of a council, punish by fine or excommunication those who transgress the rules of the caste. Some of the *Mucuas* marry, which ceremony consists in a feast without any religious rite. In this case, the marriage can only be dissolved on account of the woman's infidelity. They have another kind of marriage called *Parastri*, in which the man and woman, whenever they please, may separate; and the children always go along with their mother. The *Mucuas* can eat all kinds of animal food, except beef; and may lawfully drink intoxicating liquors. They are all free, and a few of them can read accompts. They have no *Guru*, nor *Puróhita*. The deity of the caste is the goddess *Bhadra-Kálí*, who is represented by a log of wood, which is placed in a hut that is called a temple. Four times a year the *Mucuas* assemble, sacrifice a cock, and make offerings of fruit to the log of wood. One of the caste acts as priest (*Pújári*), but his office is not hereditary. They are not admitted to enter within the precincts of any of the temples of the great gods who are worshipped by the *Brahmans*; but they sometimes stand at a distance, and send their offerings by more pure hands. They seem to know nothing of a state of future existence; but believe in *Pysáchi*, or evil spirits, who inflict diseases, and occasion other evils. A class of men called *Cunian* are employed to drive away the *Pysachi*. They bury the dead.

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Customs of the *Cunian*, or *Cunishun*.

The *Cunian*, or *Cunishun*, are a caste of *Malayala*, whose profession is astrology. Besides this, however, they make umbrellas, and cultivate the earth. In many other parts of India, an astrologer, or wise man, whatever his caste may be, is called a *Cunishun*. The *Cunian* is of a very low caste; a *Namburi*, if a *Cunian* come within 24 feet of him, must purify himself by prayer and ablution. A *Nair* is defiled by his touch. The *Cunian* possess almanacks, by which they inform the people of the time for performing their ceremonies, the proper time for sowing their seed, and the hours which are fortunate or unfortunate for any undertaking. When persons are sick, or in trouble, the *Cunishun*, by performing certain ceremonies in magical squares of 12 places, discover what spirit is the cause of the evil, and how it may be appeased. Some *Cunian* possess *Mantrams*, with which they pretend to cast out devils (*Pysachi*). These *Mantrams* are said to be fragments of the fourth *Veda*, which is usually alleged to be lost. Very few are possessed of this knowledge, which is looked upon as of the most awful nature. The *Cunians* pray to both *Vishnu* and *Siva*, and sacrifice fowls to all the *Saktis*. In *Panupa* is a temple of *Chowa*, the goddess of the caste. The *Caricul*, *Pújari*, or priest of this goddess, is a *Cunian*, and his office is hereditary by male descent. The sacrifices to *Chowa* are performed by the washerman, who cuts off the animal's head. The *Caricul* gets all the offerings made to *Chowa*, and every family gives annually at least one silver *Fanam*. The *Cunian* give *Dharma* to the *Brahmans*; but that sacred order will neither receive their *Dana*, nor read prayers (*Mantrams*) at any of their ceremonies. Some of the *Cunians* burn, and others bury the dead. The spirits of good men abide with God: those of evil men become *Pysachi*, and occasion much trouble. Some of them are so obstinate, that they can be expelled only by a pilgrimage to *Kasi*, or *Rameswara*. The *Caricul* acts not only as a priest, but [illegible]. He settles all disputes, and can punish, by [illegible] all those who transgress the rules of caste. The *Cunian* are permitted to eat animal food, and to drink spirituous liquors. A man's children are considered as his heirs, yet it is not customary with them to marry. A lover gives 16 *Fanams*, or 3⅕ *Rupees*, to the parents of his mistress, and takes her home. When he pleases, he may turn her away; but without his consent she cannot separate; and, if she be unfaithful to his bed, is liable to be beaten. No *Cunian* will cohabit with a woman who has had connection with a man of another tribe; but if a girl has been sent home on account of an impropriety with a *Cunian*, any one, who is in want of a mistress, thinks this no reflection on her character. In case of separation, the boys follow their father, and the girls their mother.

Commerce.

The commerce of this circle, which is under the management of Mr. Strachy, is of more importance than any other in the province, especially in the articles in which Europeans deal. On this subject I consulted Mr. Torin, the commercial resident, whom I had an

opportunity of seeing at *Tellichery*, and who has sent me very satisfactory answers to the questions which I proposed to him in writing, together with various papers tending to throw light on the subject. Among these, a communication from Mr. Brown, now superintendent of the Company's plantation, is peculiarly valuable. I also particularly examined *Maccay*, the nephew of *Mousa*, who is by far the principal merchant of *Tellichery;* and in the following account I adhere to the statement given by him, where I do not see reason, from the other documents in my possession, to make alterations. 1801. Jan. 8—10.

Black pepper is the grand article of European commerce with *Malabar*. Before the invasion of *Hyder*, in the *Malabar* year 940 (176$\frac{4}{5}$), the country now called the province of *Malabar* produced annually about 15,000 *Candies* of 640 lb. The quantity continued gradually diminishing until 959 (178$\frac{3}{4}$), when Colonel Macleod's army came into the province; since which the decrease has been more rapid, and continues every year to augment. A good crop will now produce 8000 *Candies*, a bad one only one half of that quantity. Of this, 4000 *Candies* are produced in the territory of the *Pychi Raja*, now in rebellion, and of late the seat of a most bloody warfare. The only diminution, I am inclined to think, that has taken place since the province has become subject to the Company has been owing to these disturbances. Mr. Torin states, that the annual quantity produced in the *Pychi Raja's* country is now reduced to about 2500 *Candies*. Black pepper.

Europeans usually purchase about five-eighths of all the pepper that is produced in *Malabar*; and the price which they give absolutely regulates that of the whole. Since the French have been driven from *Mahe*, the whole of this has of course fallen into the hands of the Company. Annexed are the exports from their warehouses in the following years, as stated by Mr. Torin.

	Candies of 600 lb.	*Maunds* of 30 lb.	lb.
A. D. 1782	86	13	07
1783	132	14	19
1784	2185	10	08
1785	28	07	04
1786	615	01	05
1789	937	19	08
1790	1148	09	01
1791	2107	05	05
1792	2001	15	17
1793	2499	06	10
1794	2400	00	00 about.
1795	1914	11	23
1796	none		
1797	4155	04	23 of crop 96 and
——	2070	18	07 of crop 97.

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	Candies of 600 lb.	Mavnds of 30 lb.	lb.
A. D. 1798	4778	09	01
1799	1135	06	01
1800	1145	03	10
In store ...	4067	24	

Until the capture of *Mahe* in 1793, the greater part of the pepper trade went to that port; but since that event, the Company has, according to *Maccay*, sent annually about 4000 *Candies* to Europe direct, to *Bombay*, and to *China*. The remainder of the pepper is exported chiefly by native traders. The largest quantity goes to the Bay of Bengal; the next largest to *Surat*, *Cutch*, *Scind*, and other ports in the north-west of India, and a considerable quantity goes to the Arabian merchants of *Muscat, Mocka, Hodeida, Aden Mocalu, Jedda*, &c. The demand from *Seringapatam* was the smallest, and used to amount to about 500 *Candies* a year. The pepper that went to *Coimbetore* came chiefly from the *Cochi* and *Travancore* dominions.

The Company has always made its purchases by a contract entered into with a few native merchants, or in fact for many years almost with one only; that is, with *Chouacara Mousa* of *Tellichery*. Seven others have also dealings with the Company; but one of them is *Mousa's* brother, and the others are in a great measure his dependants. In December and January, when the crops are so far advanced that a judgment can be formed of the quantity of pepper likely to be obtainable, the commercial resident assembles the contractors, and a written agreement is entered into with them, settling the price, and the quantity that each is to deliver. At this time, sometimes the whole, and in general at least one half of the money is advanced to the contractors. There is no adequate penalty contained in the contract, to compel the native merchant to a regularity in delivery; and Mr. Torin complains, that from this defect very great inconvenience has at present arisen. The last contract was for 5000 *Candies*; it was entered into fifteen months ago; one half of the amount was paid down, and three months afterwards the remainder was advanced. The whole of the pepper ought to have been delivered within the year, but there is still a deficiency of 1500 *Candies*. This has not arisen from any difficulty in procuring the pepper, to which the contractors were subject; but because they had thus the benefit of the Company's money and could sell the pepper with advantage to private dealers; while it was easy to foresee that the pepper would fall, and the balance will be paid when the market price will be 120 *Rupees*, while they contracted for it at 130. There is no danger of an ultimate loss of the money advanced to *Mousa*, and some others of the contractors, for they are men of immense wealth. The native merchants, by means of their agents, procure the pepper partly from small traders, and partly from culti-

vators. All the pepper procured from the southern districts is obtained by means of small traders. From the districts near *Tellichery*, part is bought directly from the cultivators. I have already given an account of the manner in which the traders fleece the poor cultivators; but this of course the traders deny. *Maccay* says that they receive the full price stipulated for by the commercial resident, and that the only benefit which the merchant has, is that he receives the pepper by a *Candy* of 640 lb. and delivers it by one of 600. He, it is true, receives the money from the Company; but by this he would have only 6⅔ per cent. for the trouble of agency, and risk of bad debts. From the prudent cultivators of this neighbourhood, according to *Maccay*, the contractors purchase the pepper at the time of delivery, and their profit consists in buying by the *Candy* of 640 lb., and delivering it by one of 600, which seems fully adequate to their trouble. Risk they have none; for they have either previously received the money, or get it immediately on delivery. To men in more necessitous circumstances, they advance such money as they have received from the Company, at about five or six per cent. lower than the market price, which is about a reasonable profit for their risk: but the cultivators, as I have already said, allege, that the profits of the merchant are much greater. It might be thought, that, by making advances directly to the cultivators, the profits arising to the traders and contractors might be saved to the Company. Mr. Torin, whose experience, local knowledge, and abilities, entitle his opinion to be received with great attention, think that this could not be done with advantage.

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The pepper, in the state in which it is brought by the cultivators, is received by all merchants as fit for market, and is exported without preparation by every one except the Honourable Company, who at their own expense have it cleaned and garbled. All pepper called *heavy* sells at the same price, although that which is produced in *Callai* and *Cotay-hutty*, is reckoned somewhat better than any other; but there is a *light* pepper, of which about 150 *Candies* are yearly produced in *Chowgaut, Panyani*, and *Tannore*: this is low-priced, and goes chiefly to *Surat*. White pepper is not an article of commerce; a little is occasionally made, and is chiefly given in presents, as a useful medicine.

In *Malabar* the nature of the Company's trade in pepper has undergone three great changes; and by these the conduct of their servants ought to have been more regulated than in some instances would seem to have been the case. First, previous to the province having been ceded to the Company, their interest was merely mercantile; it was the duty of their servants to procure the commodity as cheap as possible; and I have no doubt, that in this respect the affairs of the Company were well enough managed. While the French trade was under the control of an exclusive Company, this was easily conducted, it being the mutual interest of the two Companies to join in reducing the price. During this time, according to *Maccay*, the

1801. Jan. 8—10.

Honourable Company gave in general from 105 to 125 *Rupees* a *Candy*. Once or twice it rose to 135 or 140. When the exclusive privileges of the French Company were done away, and *Mahe* was made a free port for all nations, of course a competition arose; and considerable funds beginning in 1787 to come out to *Mahe*, the pepper began to be enhanced in price, and it had always been nominally higher there than at *Tellichery*, because the French *Candy* of 600 lb. was equal to 654 lb. avoirdupois. This competition had a greater effect on the price at *Mahe* than at *Tellichery*, where, even allowing for the difference of weight, the Company got their investment cheaper than the market price common in other parts of the province. This seems to have been owing to *Mousa's* residing in *Tellichery*, where his property was secure, and to his sacrificing a part of his profits, by selling to the Company a part of his pepper at a lower price than he could have got at *Mahe*. This was an offering made for the security which he enjoyed; as the withdrawing of the military station from *Tellichery* was constantly dreaded, should the Company not derive some peculiar advantages to counterbalance the expense. Secondly, a great change took place in the nature of the Company's pepper trade, by their acquiring the sovereignty of the province, which happened in 1792. Their interest as sovereigns required a total change in the principles by which they purchased pepper; and the higher the price paid by foreigners, who were the principal purchasers, the better for the Company. Mr. Brown, who then traded at *Mahe* as Danish resident, very judiciously recommended to Mr. Farmer, one of the commissioners, that the Company should confine their trade in pepper within as small a compass as possible; and, in place of endeavouring to get it at a lower rate than the market price at *Mahe*, that they should always give a little more for what they took; and by that means they would not only enrich the province, but increase their revenues. Measures, however, were taken directly in opposition to this sound advice, and, by means of the sovereign authority vested in their servants, the Company procured a small quantity of pepper at a rate considerably lower than the *Mahe* price; but by far the greater part went to that market, and at a lower price than if the Company had gone into a fair competition. A third change has now taken place. The French having been expelled from *Mahe*, the Company became immediately possessed of the whole pepper trade without a rival. As merchants, it was then their interest to lower the price, which was undoubtedly in their power; but as sovereigns their interest was, that the price should not be so low as to injure the revenue, or to discourage agriculture. Mr. Brown thinks that, both considerations being held in view, 150 *Rupees* would have been a fair price. Immediately before the capture of *Mahe*, in July 1793, in order to complete the loading of a ship, the price given for pepper had risen to 220 *Rupees*; and, most unaccountably, Mr. Agnew, the commercial resident at *Calicut*, without attending to the necessary

consequences of that event, in the following season contracted for 1801.
4000 *Candies* at 200 *Rupees*. The price, however, as was naturally Jan. 8—10.
expected, has gradually fallen; and this year, owing to the Company making no purchases, it is much to be regretted that it has sunk to 120 *Rupees*, which is too low to enable the cultivator to thrive, and to discharge the revenue, while he is subject to the present monopoly of native contractors.

Sandal-wood is not the produce of *Malayala*; but as the greater Sandal wood.
part of it grows immediately to the eastward of the western *Ghats*, all that is produced toward the sources of the *Cavery* ought to come to *Malabar*, as the nearest sea-coast from whence it can be exported. This sandal-wood is of the best quality; and, from its growing in districts not far distant from *Seringapatam*, is commonly called *Pattana*, or town-sandal. Owing to the unsettled state of *Malabar* during the reign of *Hyder*, however, it was more convenient for the merchants to send this article to the eastern coast of the peninsula. *Tippoo* on his accession having prohibited the exportation of this article, all that could be cut secretly was smuggled into the *Coorg* and *Wynaad* countries, and thence conveyed to *Malabar*. The sandal-wood of the *Naggar Rayada* was in a similar manner smuggled to *Raja-pura*, and from thence sent to the *Tellichery* market. The whole quantity then annually brought to *Malabar* for sale varied from 1700 to 2200 *Candies* of 560 lb. The quantity brought from *Coorg*, during the years from 1792 to 1798, amounted to about 12,000 *Candies*. Since the overthrow of *Tippoo*, the quantity brought down has been very small. The *Coorg Raja* no longer can commit his depredations, and the rebellion of the *Pychi Raja*, who possesses the *Wynaad*, and the principal passes up the *Ghats*, has thrown the trade back again toward the eastern coast. There can be little doubt, however, that, as soon as the communication is open, *Tellichery* will be the principal mart for the best sandal-wood; as *Mangalore* will be for that of the second quality, which grows in the *Naggar Rayada*.

Before the year 1797 sandal-wood was sorted into three sizes. Of the first size, 35 pieces made a *Candy* of 560 lb.; of the second size, 45 pieces; and of the third size, 55 pieces. Since the year 1797 the sizes have been reduced. The first sort now contains 65, the second sort 72, and the third sort 90 pieces. All pieces smaller than these, all rent and knotty pieces, whatever may be their size, together with cuttings, roots, and the like, are called *Carippu*, and form a fourth sort. The chips which are removed in polishing the logs form a fifth assortment. The first three sorts only are sent to *China*. The *Carippu* is sent to *Bengal* and *Muscat*, but to the former in the greatest quantity. The chips are sent to *Bombay*, *Cutch*, and *Muscat*.

The Company during *Tippoo's* government used annually to send from 800 to 300 *Candies* of the first three sorts to *China*. All the remainder was by private traders sent to *Bengal*, *Bombay*, *Cutch*.

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and *Muscat.* The commercial resident, or chief of the factory, makes the purchase from the merchants on the sea-coast for ready money. These have always on hand a considerable stock, as sandal rather improves by keeping in close store-houses.

No deceit can be practised on a person of common skill, in disguising bad sandal-wood, so as to sell it for good. None will pass in any of the three sorts, that is knotty or rent; and the darker the colour, and stronger the smell, the better. *Maccay* thinks that the burying of the sandal wood, which the *Coorg Raja* practised, was done more with a view of concealing it than of improving its quality.

The prices lately given for it by the Company have been as follow:

		Rupees.
1794	1st sort 45 pieces to the *Candy*	200
	2d ditto 55 ... ditto	180
1797 }	1st sort 65 pieces to the *Candy*	150
1798 }	2d ditto 72 ... ditto	147½
1799 }	3d ditto 90 ... ditto	145
1800	1st sort 37 pieces to the *Candy.* ...	148¾
	2d ditto 65 ... ditto	127

The abolition of the prohibitory laws, in consequence of the overthrow of *Tippoo,* has evidently had a great effect in reducing the price, and has brought larger sorts to market. The *Carippu* sells from 70 to 100 *Rupees* a *Candy,* and the chips from 12 to 15.

Cardamoms.

Cardamoms are another branch of trade, which naturally belongs to *Malabar,* although but a small quantity of them is the produce of that country. The usual quantity brought for sale is 120 *Candies* from the following places:

	Candies of 640 lb.
Coorg	40
Wynaad	57
Tamarachery.	20
Cadutinada, or *Cartinaad.*	3
	120

Other accounts make it as follows:

Coorg	30
Wynaad	65
Tamarachery...	3
Cadutinada.	2
	100

About five *Candies,* of a very inferior quality, are procured from *Vellater.* It sells only for half of the price which the others bring. The cardamoms of *Wynaad,* especially those of a place called *Payria,* are reckoned the best, and never sell lower than 1000 *Rupees* a *Candy.*

Any merchant, by looking at cardamoms, can tell the country 1801.
whence they came. The cardamoms of *Wynaad*, including those Jan. 8–10.
also of *Cadutinada* and *Tamarachery*, contain many round, full white grains, or capsules. Those of *Coorg* have fewer of these fine grains, but they have also fewer black or light ones. The grains from *Vellater* are long, large, thick-skinned, and dark-coloured.

The Company have not traded in this article since the year 1797, when they sent seven *Candies* to Europe. They have always purchased them by contract from the merchants on the sea-coast. The Company garble the cardamoms sent to Europe. At the last purchase 8 *Candies* of 640 lb. produced only 7¼ *Candies* at 560 lb. after the black or light grains had been removed. These bad grains sell very well to private traders, who dispose of them to the Arabs. Private traders never garble their cardamoms. They are exported chiefly to *Bengal*, *Bombay*, *Surat*, *Cutch*, and the different ports in Arabia.

The *Coorg Raja* generally sells to *Mousa* all the cardamoms which his country produces. Traders who live near the *Ghats* bring those of *Wynaad* for sale, and generally receive part of the price in advance from the merchants on the sea-coast. Owing to the rebellion of the *Pychi Raja*, this trade has for a year past been at a stand.

The exports and imports during the last three years, from the circle under Mr. Strachy, which is the most considerable for trade of any in *Malabar*, will be seen by the extracts from the custom-house accompts, given in the APPENDIX at the end. It must be observed, that smuggling is carried on to a very great extent; and, therefore, that the exports in the accompts are greatly under-rated.

In the northern part of *Malabar*, the most favourite currency is Money.
a silver *Fanam*, equal to one-fifth of a *Bombay Rupee*. According to an assay made at *Calcutta*, this *Rupee* contains, at the mint value, rather less than 23*d*. It contains $164\frac{15}{100}$ grains of pure silver. The *Madras Rupee* contains only 163½ grains, but passes here for five silver *Fanams*. As gold is not much in currency, I have, in reducing *Malabar* money to English, made my calculations by the mint value of the *Bombay Rupee*; but it must be recollected in all Indian accompts, that a pound of silver will bring more gold there than in Europe, and in exchange with that country passes for much more than its intrinsic value.

In *Malabar*, false coiners are very numerous, and a great nuisance.

The copper coinage in use at *Tellichery* was struck in England, and 10 *Paissas* are always current for one silver *Fanam*. There is another copper coin called *Tarrum*, two of which are equal to one *Paissa*.

11th *January*.—Mr. Wilson, the collector of a circle containing Jan. 11.
the two districts called *Cotiote Cotay-hutty*) and *Irvenaad*, conducted me to his house at *Cadrur*. This formerly belonged to the *Pychi*

1801. Jany. 11. *Rajas*, and was by the *Nairs* reckoned a superb building. It is in the form of a square, surrounding a court, in which there is a well and a small tank. The building is two stories high, but the apartments on the ground floor are very low in the roof. Originally, the only entry was by a ladder to a door in the upper floor; in the lower story the doors opened towards the court, to which some bad stairs also gave access from the upper floor. The apartments of the upper story although small, were very well aired. The building is of stone, and roofed with tiles. Numerous projecting windows and loopholes render the whole very capable of defence against musquetry.

Mr Wilson's account of his district. I breakfasted with Mr. Wilson; and from the answers which he has been so good as to send to my queries I give the following account of his division.

Extent and soil. According to a report which was given in by the surveyors, *Cotiote* is said to contain 312 square British miles, and *Irvenaad* 45. The face of the country resembles that of the other parts of *Malabar*, containing low hills separated by narrow vallies, which are fit for the cultivation of rice. Toward the *Ghats* these hills rise to a considerable height; but the soil almost every where is good; and Mr. Wilson thinks, that not more than one-thirtieth part of the two districts is too steep, rocky, or barren for cultivation. The long unsettled state of *Cotiote*, and the calamities which it has suffered, would account for its being at present almost waste; but it is said, that, even before these troubles commenced, not above one-fifth part of it was cultivated. Indeed, its calamities are in a great measure owing to its forests having encouraged the natives to make an ill judged resistance against their invaders. *Irvenaad* has not been disturbed, and about four-fifths of the whole are now cultivated.

Forests. Wherever the ground is not cultivated, there are stately forests; but the produce of these is of very little value. About 20 *Maunds* (640 lb.) of honey, and half that quantity of wax, are annually procurable. *Lac*, and some *Sapan* wood, are to be found; but they are very scarce. The bark taken from the root of a wild *Jack* tree (*Artocarpus*), called *Cat Pilawa*, is used among the natives as a brownish red dye, but is not exported. A few trees of sandal may be seen, as in other parts of *Malabar*; but their wood has little or no smell, and cannot be sold. The quantity of ginger, and *Casturi* turmeric, growing wild in the forests, cannot be ascertained; that of the last is pretty considerable. The *Cassia* is in plenty. The quantity of timber trees procurable in one year, including *Teak*, *Poon* (*Calophyllum*), and *Viti* (*Pterocarpus*), does not exceed three or four hundred. The timber of the other forest trees is not saleable.

Mines. No metals have been discovered in these districts.

Rice-ground. In *Cotioté* no attempt has been made to ascertain the extent of *Dhanmurry*, or rice-ground; and by far the greater part of what is fit for the purpose is covered with forests. The *Dhanmurry* of *Irvenaad* contains as much as will sow 150,000 *Edangallies* of seed, and may amount to almost one third of the country. Mr. Wilson,

estimates, that 10 *Edangallies* of seed will sow a field of 40 rolls square, each roll equal to 28 English inches: at this rate, the quantity of seed for an acre will be two bushels and a half; the *Edangally* here being the same with that at *Tellichery*, and containing 108 cubical inches. This agrees so well with the proportion of seed required for an acre, as stated by Mr. Drummond, and confirmed by my measurement at *Calicut*, that I have no doubt of its being correct, and that on this subject Mr. Warden and Mr. Wye must have been led into some error. The quantity of seed stated by Mr. Wilson will sow only 3000 acres, even allowing that none of it will produce more than one crop in the year; but a third part of 44 square miles contains 9600 acres; in this account therefore there must be some error. Mr. Wilson states, that of the land fit for producing rice about one-ninth is waste. 1801. Jan. 11.

In *Cotioté* three-fourths of the whole land either is, or might be made, *Parumba*; and about a fourth of this has been once occupied by plantations, among which a little *Ellu (Sesamum)*, hill-rice, and *Pyru* (legumes), are cultivated. If the survey states the extent of *Cotiote* properly, and Mr. Wilson's estimate be right, the plantations amounted to 37,440 acres, and the *Parumba* or hill-land underwoods contained 112,320 acres. There is no reason to suppose this account exaggerated, as *Cotiote* formerly produced about 500,000 *Rupees* worth of pepper, which is more than 13½ *Rupees* for each acre planted; besides all the other produce of these lands, such as *Jacks*, coco and *Betel-nuts*, and ginger, all of which were of considerable value. From this we may judge, were it in a settled state, how valuable the *Cotiote* district might be made; as almost the whole of the remaining 112,320 acres are fit for plantations. On these lands the cultivation of pepper seems to be the primary object. The mode commonly adopted by the natives, Mr. Wilson thinks, is the most advantageous method of cultivating pepper that has hitherto been tried, and is attended with little expense. In encouraging this cultivation, the construction of tanks, to give a supply of water in the hot season, would, Mr. Wilson thinks, be attended with great success. At present, the chief support of *Cotiote* depends upon the cultivation of the *Ponna* lands, or those hills that have not been formed into plantations. While at *Tellichery*, I describe the manner in which this is done. Parum land.

The *Parumba* or hill-lands in *Irvenaud* amount to about two-thirds of the whole, or what ought to be 19,200 acres; of these about one half are now occupied by plantations, one quarter is cultivated with hill-rice and *Ellu*, and one quarter is not cultivated.

Owing to the unsettled state of the country, no estimate has been formed of the number of taxable trees.

For what reason I know not, the making of salt has been prohibited; but about 130 *Cannies*, or evaporating plots, might be constructed on inlets of the sea which reach to these districts. Salt.

The number of houses and people is very uncertain. Mr. Wilson Population.

1801. Jan. 11.

states the houses in *Irvenaad* at about 3,288, and in *Cotiote* at about 4087. Besides the people inhabiting these houses, there are in the hills and forests several rude tribes; but the whole number of slaves is only about one hundred.

Commerce.

The commerce of these districts consists in selling the produce of the plantations, and purchasing rice, salt, salt-fish, oil, cotton and cloth. If all the rice-lands were cultivated, there would be more than enough for the present inhabitants; but not a sufficient quantity to support the people that would be required to cultivate all the lands which are fit for plantations of pepper. I consider therefore as improper, any attempt to introduce manufactures. The price of pepper that is given to the cultivator is on an average from 100 to 120 *Rupees* for the *Maund* of 640 lb. The average price which the merchant has again sold it at, for the last five years, may be taken at 150 *Rupees* for the *Maund* of 600 lb.; and he has never advanced so much money as he has received in advance from the Company. The average price of rough rice is 35 *Rupees* for the *Corge* of 42 *Mudies* or *Robbins*, containing 1,000 *Edangallies*, or nearly 16*d.* a bushel.

Company's plantation, and experiments conducted there.

From *Cadrur* Mr. Wilson was so good as to conduct me to the Company's plantation at *Angaracundy*, where I was kindly received by Mr. Brown, before mentioned. He has the management of the plantation, and collects the revenue of a small district named *Randaterra*, over which Mr. Strachy is the magistrate. The country between *Cadrur* and the river on the banks of which *Angaracundy* is situated, is almost entirely deserted, and overgrown with trees and bushes. It rises into small hills intermixed with narrow vallies fit for the cultivation of rice; but the extent of these, in proportion to that of the hills, seems to be smaller than in most other parts of the province. The whole seems to have been formerly cultivated; and the hilly ground is less steep than usual in *Malabar*. The road all the way was good even for a cart.

The plantation has of late been much molested by the *Nairs*, and the eastern part of it has fallen into their hands; so that for the protection of what remains, it has been necessary to station a European officer, with a company of *Sepoys*, at Mr. Brown's house. The *Nairs* are so bold, that at night they frequently fire into Mr. Brown's dwelling; and the last officer stationed there was lately shot dead, as he was walking in front of the house. Many valuable experiments are now carrying on in the plantation, which in an afternoon's walk Mr. Brown was so good as to explain.

Pepper.

From what has been done in the plantation I think it highly probable, that pepper may be raised on almost every part of the hills of *Malabar* where the soil is tolerable, and such occupy at least one-fourth of the whole province. Mr. Brown has cleared away the bushes from a considerable extent of land, and planted the vines against every tree that he found growing, and they seem every where to succeed: so that the species of tree upon which the pepper

vines are supported is of little importance. Mr. Brown has raised from seed some pepper plants, and thinks that these are more vigorous than such as have been raised from cuttings. He is of opinion, that the more the vines are exposed to the sun the better. On this account, trees having a thin foliage and straight stems are preferable; such are the *sterculia fœtida* (which at *Mahe* is called *Poon*) and the *Teak*. He says, that the most productive vines in *Cotiote* were planted against *Teak* trees, which had been previously killed, by taking a circle of bark from their stems, and allowed to remain in the ground as dead timber In ordinary seasons, watering is not at all necessary, but manure of dung and ashes is very serviceable. 1801. Jan. 11.

In the lower *Parum*, or rising ground, usually employed for rearing *coco* and *Betel-nut* palms, the sugar-cane seems to thrive, and does not require watering. The experiment has not yet been carried to a sufficient length to enable Mr. Brown to speak decidedly on the subject; but, if this valuable plant be found to answer in such situations, its introduction will be of immense benefit to the province. Sugar-cane.

Mauritius and *Nankeen* cottons both grow in the high lands, and thrive on the highest parts without water. I think that they have been planted too thin; and that, unless the soil will produce a much thicker crop, the value of the cotton will not defray the expense of cultivation. Mr. Brown is trying cotton on the level fields (*Dhanmurry*) as a second crop after rice. I have no doubt of this succeeding; but I think that in *Malabar* nothing should be tried on such ground, which may interfere with raising a larger quantity of grain. Cotton.

On the lower part of the rising ground coffee trees are in a very thriving condition, and may prove a valuable acquisition. As yet, however, they have not arrived at the age when they produce fruit. Coffee.

Mr. Brown has planted a great many of the *Cassia* trees, in hopes of its being improved by cultivation. He will train it up so, that, when cut, the bark will form into neat rolls like cinnamon, or like the *Cassia* of *China*. He expects that it will be then at least equally valuable with the last mentioned bark. The tree will undoubtedly thrive in every part of *Malabar*. Cassia, or wild cinnamon.

In the plantation there are some trees of the *Ceylon* cinnamon; but those in *Bengal* seem to be equally thriving. Cinnamon.

Mr. Brown has been making some experiments to ascertain the expense of cultivating rice, and the produce to be expected from any given extent of land. Owing to the inroads of the *Nairs*, some of his experiments have altogether failed. He gives me the following account of the one that has proved most satisfactory; which I detail, because the subject is of the utmost importance. "The soil is of a middling quality, of blackish earth and sand. The exposition to water is such, that it can be overflowed at pleasure until the end of January. Its extent is 1½ acre and 9 square yards. It was laboured Rice.

1801. Jan. 11. in the common *Malabar* way, with little manure and imperfect tillage. On this were sown 90 *Edangallies* of *Cayma* rice, one of the kinds that are reaped in September. It was twice weeded. The produce was only 750 *Edangallies*, although carefully reaped by my own people. I might have had another crop of rice from the same ground, but was prevented by the frequent inroads of the natives. The crop on this field was much inferior in appearance to that in the other parts adjacent, all of which were sown with *Mundom* rice, a species which, although transplanted at the same time with the *Cayma*, does not ripen until the end of January; so that the ground on which it is raised does not admit of a second crop. It is considered, however, that the single crop of *Mundom* is generally equal to one of *Cayma* and one of *Chitiny* (the name of the rice used for the second crop). Estimating the produce of this field at the usual rate of 35 *Rupees* for the 1,000 *Edangallies*, the produce in money per acre was 21 *Rupees*; which, I am convinced, is far below the medium produce of the rice fields in this district." According to this statement, the acre was sown with three bushels, which is somewhat thicker than I have in general found to be the case. The produce is 25 bushels, worth 2*l.* 0*s.* 1½*d.* If a second crop had been taken, it probably would have been equal to two-thirds of the first, giving the total produce of an acre at 3*l.* 6*s.* 10¼*d.*, which in India is a very great sum.

Plantations. In his opinion concerning the plantations in *Malabar*, Mr. Brown differs most essentially from Mr. Smee. He thinks that the forming of plantations, and the keeping of them up, are attended with such expense, that the people to whom they belong cannot afford to pay more than one-fifth of the produce as a tax to government; and that whenever a tax exceeding this shall be actually levied, the proprietors will allow the plantations to go to ruin. I must confess that I have not been able to discover any extraordinary expense attending these plantations; while almost every where in *Malabar* there is water carriage for the exportation of the produce. The plantations above the *Ghats*, although all their produce must be sent hundreds of miles by land for a market, pay in general one half of the produce, and yet are reckoned the most valuable property that belongs to the subject; and every man who has money endeavours to lay it out in purchasing or forming plantations: yet this is, no doubt, attended with at least as much trouble as in *Malabar*, and that in a less favourable climate. I have no doubt myself, that if the government take only one half of the produce, by any means that are equable, and not vexatious, the plantations will soon extend all over *Malabar*, where the soil is fit for the purpose; and that the diminution which has taken place in this article of cultivation is owing to the want of a quiet established government, and not to oppressive taxes. The reasons that induce me to think that the planter of gardens can afford to pay one half of the produce, may be seen by referring back to the account of that cultivation which I

procured at *Angada-puram*. I by no means think, however, that the half of the produce levied from the planter should be wholly taken by government; the proprietor of the soil, both in justice and policy, is entitled to a share. 1801. Jan. 11.

Changes in the government.

Mr. Brown gives me the following account of the charges that have taken place in *Malabar*; and, owing to his great abilities, and knowledge of the country and its inhabitants, it deserves the greatest attention. I shall only observe, that I do not think he does justice to *Hyder's* character, of which I have a most favourable opinion, founded on the reports of all his former subjects, except those of *Malabar*, who cannot possibly be expected to speak fairly of an infidel conqueror of their country. "*Malabar*," says Mr. Brown, "when *Hyder* invaded it, was divided into a number of petty *Rájáships*; the government of which being perfectly feudal, neither laws, nor a system of revenue, were known amongst its inhabitants. Owing to the quarrels between the different *Rájás*, and the turbulent spirit of the *Nair* chiefs, who were frequently in arms against each other, the state of the country was little favourable to the introduction of order or good government. *Malabar*, however, was then a country very rich in money. For ages, the inhabitants have been accumulating the precious metals that had been given them for the produce of their gardens. *Hyder's* only object, in the countries that he conquered, was to acquire money; and, provided he got plenty of that, he was very indifferent as to the means which his officers took to obtain it. Immediately after the conquest of *Malabar*, vast sums were extorted from its inhabitants by the military officers, and by the *Canarese Brahmans* placed over the revenues. Of these extortions *Hyder* received a share; and no want of a system of revenue was felt until these sources began to fail. When he found the assets from *Malabar* fall short of its charges, he listened to proposals from the *Rájás* to become tributaries. An estimate of the revenue was made by the above-mentioned *Brahmans*; who, as many of them were to remain with the *Rájás* as spies on their actions, took care that the estimate should be so formed, as to leave a large sum to be divided between them and the *Rájás*. By this new order of things, these latter were vested with despotic authority over the other inhabitants, instead of the very limited prerogatives that they had enjoyed by the feudal system, under which they could neither exact revenue from the lands of their vassals, nor exercise any direct authority in their districts. Thus the ancient constitution of government (which, although defective in many points, was favourable to agriculture, from the lands being unburthened with revenue) was in a great measure destroyed, without any other being substituted in its room. The *Rájá* was no longer, what he had been, the head of a feudal aristocracy with limited authority, but the all powerful deputy of a despotic prince, whose military force was always at his command, to curb or chastise any of the chieftains who were inclined to dispute or disobey his

1801. Jan. 11. mandates. The condition of the inhabitants under the *Rájás*, thus reinstated in their governments, was worse than it had been under the *Canarese Bráhmans*; for the *Rájás* were better informed of the substance of individuals, and knew the methods of getting at it. In short, the precarious tenures by which the *Rájás* held their station, joined to the uncontrolled authority with which they were vested, rendered them to the utmost degree rapacious; and not even a pretence was set up for exacting money from all such as were known to have any. There were no laws; money insured impunity to criminals, and innocent blood was often shed by the *Rajas'* own hands, under the pretence of justice. In the space of a few years many of them amassed treasure, to an amount unknown to their ancestors; and had it not been for the dread that they entertained of *Hyder's* calling them to an account for their ill-gotten wealth, their situation under him was better than that which they held before the invasion. The country, however, was daily declining in produce and population; in so much that, at the accession of *Tippoo*, I have reason to conclude, from my own observations, and from the inquiries which I then made, that they were reduced to one half of what they had been at the time of *Hyder's* conquest But still greater calamities were reserved for the unfortunate inhabitants of this country in the reign of the *Sultan*. During the government of his father, the *Hindus* continued unmolested in the exercise of their religion; the customs and observances of which, in many very essential points, supply the place of laws. To them it was owing, that some degree of order had been preserved in society during the changes that had taken place. *Tippoo*, on the contrary, early undertook to render *Islamism* the sole religion of *Malabar*. In this cruel and impolitic undertaking he was warmly seconded by the *Moplays*, men possessed of a strong zeal, and of a large share of that spirit of violence and depredation which appears to have invariably been an ingredient in the character of the professors of their religion, in every part of the world where it has spread. All the confidence of the *Sultan* was bestowed on *Moplays*, and in every place they became the officers and instruments of government. The *Hindus* were every where persecuted, and plundered of their riches, of their women, and of their children. All such as could flee to other countries did so: those who could not escape took refuge in the forests, from whence they waged a constant predatory war against their oppressors. To trace the progress of these evils would carry me too far. I mention them only for the purpose of showing, how the ancient government of this country was at last completely destroyed, and anarchy was introduced. The *Moplays* never had any laws, nor any authority, except in the small district of *Cananore*, even over their own sect; but were entirely subject to the *Hindu* chiefs, in whose dominions they resided. *Tippoo's* code was never known beyond the limits of *Calicut*. During this period of total anarchy the number of *Moplays* was greatly increased, multitudes

of *Hindus* were circumcised by force, and many of the lower orders were converted. By these means, at the breaking out of the war conducted by Lord Cornwallis, the population of *Hindus* was reduced to a very inconsiderable number. The descendants of the *Rájás* were then invited to join the Company's forces; and, when *Tippoo's* army had been expelled from *Malabar*, many *Nairs* returned from their exile in *Travancore*; but their number was trifling, compared with what it had been at the commencent of the *Sultan's* reign. 1801. Jan. 11.

From this short sketch it is evident, that this province, at the time it was ceded, had really no form of government, and required a new system to be framed for its use. The feudal system was broken; and no other kind of administration was known to the *Rájás* who laid claim to their respective districts, than that which they had exercised or witnessed under *Hyder*, and which was a compound of corruption and extortion. To these men, however, the most unfit that could have been selected, was the whole authority of government over the natives entrusted. Two evils of great magnitude were the consequence of this measure: the extortions and corruptions of the preceding administrations were continued; while the ancient feudal institutions of military service were revived, and all the *Nairs* thereby attached to the different chieftains, and these again to the *Rájás*. Nothing could exceed the despotic rapaciousness of these men, to oppose which there was no barrier; for it is well known, that none of the inhabitants dare complain against a *Rája*, whatever injuries they may have sustained, assassination being a certain follower of complaint. It is not surprising, that under such rulers agriculture did not flourish, and that the fields now cultivated (which in some districts bear but a small proportion to those that are waste) should yield but very indifferent crops." Such is Mr. Brown's opinion, and it merits the utmost attention.

Randaterra, the district of which Mr. Brown collects the revenues, is a fine territory, about ten miles long, and from three to six miles in width. It was long ago mortgaged by the *Cherical* family to the Company; and under their mild government might have been expected to be in a better condition that it really is; but on account of its proprietor it suffered very severely in the wars with *Hyder* and *Tippoo*, and within the memory of man it has been twice completely depopulated. Mr. Brown has lately finished a complete survey of this district, of which I here give the result. State of *Randaterra*.

The *Turras*, or villages, are 46.

These contained 5,210 gardens; of which Plantations.

1546 are well cultivated,
1264 are imperfectly cultivated,
2340 are in a great measure neglected,
53 are totally neglected, and have gone to decay.

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In these gardens are growing the following taxable trees.

Coco-nut palms, small	... ...	28,164	
Ditto young	... ...	38,765	
Ditto bearing	.. ...	146,552	
			313,481
Betel-nut palms, young	.. ..	55,320	
Ditto bearing	.. ...	47,296	
			102,616
Jack trees, young ...	.. ..	13,467	
Ditto bearing ...	... ...	6,362	
			19,829
Trees supporting pepper vines, young		34,110	
Ditto bearing ...	... ...	73,999	
			108,109

The revenue at present arising from these lands amounts to 32,958 *Rupees* (3,148*l.* 12*s.* 9*d.*) That which Mr. Brown thinks them able to bear, without discouragement to agriculture, is 31,227 *Rupees*. If this reduction should answer the purpose of bringing the whole plantations into full cultivation, it must be evident that the revenue would then be nearly doubled; and besides, Mr. Brown thinks that all the plantations which have ever been formed in the district did not occupy more than one-twentieth part of the land that is fit for the purpose.

Rice-land.

The quantity of seed required to sow the rice lands in this district is 36,917 *Edangallies*, which pays as rent 405,175 *Edangallies*, worth 14,181⅛ *Rupees*, or 1,354*l.* 12*s.* 6*d.*; of which one half should be the land-tax. About a tenth part of this is waste.

Jan. 12. Appearance of the country.

12th *January*.—I went about ten miles to *Cananore*, where I met Mr. Hodgson, the collector of the northern district of *Malabar*. The roads were execrable. The country through which I passed consists, as usual, of low hills and narrow vallies. The hills inland are covered with bushes, and beautifully skirted with plantations. The rice grounds are extensive, well drained, carefully supplied with water, and few of them are waste. Near the sea, the hills are bare; and wherever the rock would admit the use of the plough, they have formerly been cultivated. At present there is a scarcity of inhabitants.

Cananore, or Canura.

The proper name of *Cananore* is *Canura*. It was purchased from the Dutch by the ancestors of the *Biby*, who is a *Moplay*. Previous to this the family were of very little consequence, and entirely dependent on the *Cherical Ràjas*; but having got a fortress, considered by the *Nairs* as impregnable, they became powerful, and were looked up to as the head of all the Mussulmans of *Malayala*. Various contradictory accounts are given, concerning the manner in which a Mussulman family came to be possessed of a sovereignty in *Malabar*. The most probable is, that they were originally petty *Nair* chiefs, who obtained a grant of this territory from *Cheruman Permal*; and that they afterwards were converted, owing to a

young lady's having fallen in love with a Mussulman. The children 1801.
which she had by him were of course outcasts from the *Hindus*; Jan. 12
but, being heirs to the family, it was judged prudent for the whole to embrace the faith of *Mahomet*, in order to prevent the estate from reverting to the *Cherical Raja* on the failure of heirs. The only male at present in the family is a lad, son of the *Biby* or lady of *Cananore*, who manages the affairs of the family during his minority. The succession goes in the female line, as usual in *Malabar*: the children of the son will have no claim to it; and he will be succeeded by the son of his niece, who is the daughter of his sister. This young lady has lately been married, and in the evening I was conducted by Mr. Hodgson to a grand dinner which was given, on the occasion, to all the European ladies and gentlemen in the place. We were received by the *Biby* in her bed-room, and the ladies were admitted into the chamber of her grand-daughter. The dining-room was very large, and well lighted; and the dinner was entirely after the English fashion. The quantity of meat put on the table, as usual in India, was enormous, and the wines and liquors were very good. The young chief, with the father and husband of the young lady, who have no kind of authority, received the company in the dining-room; but did not sit at table. When dinner was served, they retired to a couch at one end of the hall, and smoked *Hookas* until the company rose to dance. Appropriate toasts were given, and these were honoured by salutes of guns from the *Biby's* ships. Many fireworks were displayed, and there was music both European and native. Ths house of the *Biby* is very large, and, though not so showy as some of the *Sultan's* palaces, is by far more comfortable, and is in fact by much the best native house that I have seen.

The territory of the *Biby* on the continent is very small, yet she pays a revenue of 14,000 *Rupees* as land-tax, and the Company receive all the customs. She is allowed to collect all the other revenues; but her profit from thence must be inconsiderable. Most of the *Lacadives* are subject to her; but they are wretched islands, producing no grain, nor indeed any thing but coco-nuts, *Betel-nuts*, and plantains. The inhabitants are all *Moplays*, and very poor. They subsist chiefly on coco-nuts and fish, and employ their leisure time, of which they have a great deal, in making *Coir* from the husks of their coco-nuts. Their boats are made of coco-nut stems, and their huts are entirely constructed of the materials produced by that valuable palm. The principal exports are *Coir*, coco-nuts, and *Jagory*, with a little *Betel-nut*, and some coral from the reefs with which the islands are surrounded. On the continent this is used for making images, and for burning into quick-lime.

With so poor a territory, and such a tribute, the *Biby* could not support herself in the manner that she does, without the assistance of trade. She possesses several vessels, that sail to Arabia, Bengal, and Sumatra; and her commercial affairs are so well managed, that

1801. Jan. 12. she will soon, it is said, recover the losses that she is alleged to have suffered from the rapacity of some British officers during the wars in *Malabar*.

Cananore is situated at the bottom of a small bay, which is one of the best on the coast. It contains several very good houses that belong to Mussulman merchants. Although the disturbances of *Cotiote* have diminished the exports, the trade of the place is still flourishing. The people here have no communication with the *Maldives*, although the *Sultan* and inhabitants of these islands, are *Moplays*.

Cananore is defended by a fortress situated on the point which forms the bay. Since the province has been ceded to the Company, it has been strengthened with works after the European fashion, and is the head quarters of the province, for which it seems excellently adapted.

Jan. 13. Appearance of the country.

13th *January*.—I went ten miles to *Matmul*, situated at the mouth of a river, which derives its name from a town called *Valyapattanam*, or the *increasing city*. The river at the mouth is very wide, and immediately within the bar divides into two branches, both navigable in boats to a considerable distance. The road all the way is good; but the want of a ferry-boat capable of transporting cattle across the river is a great nuisance. Near *Cananore* the whole country consists of low hills, very bare, but not of a bad soil. Near the river the country is level and sandy, and seems well fitted for the coco-nut; but few of these palms have been planted. The greater part of it is reserved for rice, poor crops of which are raised with more labour than skill.

When *Cheruman Permal* divided *Malayala* among his chiefs, *Colutanada*, or the northern part of the country, fell to the share of the *Colastry*, or *Colatteory Raja*. This *Raja's* family originally consisted of two *Covilagums*, *Colgums*, or houses; but without any distinction between these, the oldest male of the family was the *Colastry Raja*, and the highest in authority. The second male in age was called *Tekemlamcur*; the third *Vadacalamcur*; the fourth *Nalamcur*; and the fifth *Anjamcur*. Some time afterwards the two branches of this family began to struggle against each other for the exclusive possession of authority, and each became again subdivided into separate houses. The *Pally* branch possessed 8 *Colgums*, and the descendants of the ladies residing in each formed at length an equal number of separate houses; which were

Pally }
Cherical } These two united again afterwards.
Palangat, extinct.
Caunachery.
Puduvaly }
Panaravly } extinct.
Chinga.
Tenacod.

1801. Jan. 13.

The other great branch of the family divided in the same manner into three houses.

Odimangalam.
Metale }
Taya } extinct.

Constant wars and dissensions were the consequence of this division of the family into separate houses, which is looked upon in *Malabar* as a very disgraceful and improper thing. The *Pally* branch was almost always the most powerful; and at length, having put to death most of the *Odimangalam* branch, they deprived the remainder of all authority. No sooner had they done this, than similar disputes arose among the different houses of the *Pally* branch, of whom the *Cherical* house was by far the most powerful. We have already seen, that many other chiefs had taken advantage of the disputes in this family, and had acquired possession of several large portions of *Colutanada.* In the year of the *Malabar* era 907 (*A. D.* 173½), the *Rája* of *Ikeri* invaded the *Cherical Rája* with a large army, and forced every person of the *Colastry* family to fly from the country, and to take refuge in the European settlements. At this time the oldest male of the *Cherical* house was *Udaya Varma,* who, by the assistance of the English, maintained the war for four years. The army of *Ikeri* had then penetrated to *Dharma-pattana,* with the design of attacking *Cotay-hutty,* or *Cotiote. Udaya Varma,* seeing affairs desperate, called upon the rest of the family to assist him in raising a sum of money to satisfy the enemy; but none of them would consent to give any thing. *Udaya Varmá,* therefore, of himself entered into a negotiation, which terminated in his binding himself to pay by instalments 122,000 *Pagodas* (48,087*l.* 16*s.* 9*d.*), on condition that the army of *Ikeri* should immediately retire. After this, a kind of family compact took place in a very solemn assembly, at which it is, with the usual exaggeration, said that 350,000 *Nairs* attended. The substance of the agreement was, that each male of the family, according to seniority, should succeed to the five titles which belong to the house; but that the whole management of the country which remained in their possession, and the administration of justice, should be vested in the oldest male of the house of *Cherical:* from this circumstance, the remaining dominions of the *Colutanada* family are commonly called *Cherical.* From the time of this agreement, seven chiefs of the house of *Cherical* managed the country, and supported all the *Rajas* of the family. The last of these was *Rama Varma;* who being afraid that *Tippoo,* then at *Cotayangady* near *Tellichery,* would compel him to become a Mussulman, retired to *Pychi,* and procured a friendly *Nair* to shoot him dead. Although *Rama Varma* would not submit to exile, yet, before he had determined on a voluntary death, he had secured a retreat for his sister with her two sons, the only remaining males of the family of *Cherical.* On the day in which he caused himself to be shot, she embarked at *Dharma-pattana,* and went to *Travan-*

1801. Jan. 13. *core*, the *Raja* of which country was of the same family. These events happened in the *Malabar* year 964 (*A. D.* 178 8/9). Soon after the English army entered *Malabar*, and then the late *Uniuma Raja* of the house of *Palungat*, who had been skulking in the forests of *Cherical*, came to Mr. Taylor, the chief at *Tellichery*, and called himself *Rama Varma*, the *Raja* of *Cherical*. He entered into an agreement with Mr. Taylor to be restored to the possessions of the family, reserving the discussion of the rights of the other branches of the family to be settled after the war. So long as he lived, he continued to be called the *Cherical Rájá*, and enjoyed all the honours and emoluments annexed to that dignity; but, on his death, *Vira Varma*, the nephew of *Ráma Varmá* of the house of *Cherical*, was invested with the rights to which he undoubtedly was entitled. The present *Calastry Raja*, who is the real head of the family, is of the *Chinga* house.

Jan. 14. Appearance of the country. 14th *January*.—I went about ten miles to *Aritta Parumba*, which by the English is commonly called *Artelle*. The road was very good. At first it passed along a narrow tongue of land between the sea and the northern branch of the *Valya-pattanam* river. This space consists of narrow rice fields, separated by banks of sand, which are parallel to the shore, and which probably have been thrown up by the action of the sea. These rice fields are cultivated with much trouble; for the grass in them springs up with prodigious vigour. The crops which they produce are said to be scanty, owing probably to the miserable implements of the natives being unable to destroy the grass, the vigour of which is a sufficient proof of the strength of the soil: the remainder of the country through which I came to-day consisted of low hills, in general of a good soil; but the whole is much neglected, and very few traces of cultivation are to be seen. It is very bare. This want of cultivation is attributed to a want of people, the greater part of the inhabitants having perished in the *Malabar* year 964 (*A. D.* 178 8/9); during the persecution of the *Hindus* by the *Sultan*.

Cantonment at *Aritta Parumba*. After the province was ceded to the Company, a cantonment of troops was formed at *Aritta Parumba*, and continued there until the fall of *Seringapatam*. The situation, being an elevated dry plain, was finely adapted for the purpose. It is now quite deserted. In sight of it is a hill, which is separated from the continent by salt water creeks, and forms on the coast a remarkable promontory. Our seamen call it Mount *Dilla*. The native name is extremely harsh, and can hardly be pronounced by an European, or expressed by our characters. It is somewhat like *Yeshy Malay*.

Extracts from Mr Hodgson's answers to my queries. In the evening I was joined by Mr. Hodgson, then on a tour through the districts under his management. He has favoured me with very distinct answers to the queries that I proposed to him in writing; and from his answers I have extracted the following account.

The small district of *Cananore* extends no where more than two miles from the glacis of the fort. Its surface is high, and uneven; but not so much so, as to prevent the whole from being cultivated once in three, six, or nine years according to the quality of the soil. A very small proportion of it is *Candum*, or low rice ground. **1801. Jan. 14.** *Cananore* district

Of *Cherical* all the eastern parts are one continued forest, intersected occasionally by slips of low rich rice-land (*Dhanmurry*), from one to three hundred yards broad. To estimate by a rough calculation, it may with safety be declared, that one-third part of *Cherical* is absolutely too steep, rocky or barren, to admit of any cultivation. In some places there is an amazing extent of surface occupied by a black rock (the *Laterite* before mentioned), with occasional clumps of trees, where the earth has lodged in crevices sufficiently deep to retain some small degree of moisture. *Cherical* district lands absolutely barren.

The present scanty population prevents the remaining two-thirds of *Cherical* from being fully cultivated; and the produce of the waste lands is of very little value. In the months of November and April a small quantity of honey and wax is usually procured. There are few, if any, valuable *Teak* timbers procurable. All those near the rivers have long ago been cut, and those remaining at any distance are stunted, and not worth the expense of carriage. A species of wood, called *Ooroopa* (*Hopea decandra*, Buch. MSS.), is by the natives preferred to the *Teak* for building, as being more durable, if preserved from wet, and as having a closer grain. It is common in all the woods of *Cherical;* as is also another tree called *Marathy* (*Marotti Hort. Mal. 1*, 65, *Tab.* 36), which is esteemed for the same reasons. Both are so heavy as to sink in water, and are very hard. In most of the woods of *Cherical Lac* is procurable; but the natives seldom or never take the trouble of collecting it. If a few of the families who are accustomed to the management of this insect were brought from *Mysore*, they would be of great benefit. In the northern parts of *Malayala*, no iron has ever been smelted. Wastes.

In the revenue accompts the low rice land (*Dhanmurry*) is stated to be 34,804 *Edangallies* sowing, of which 6992, or about one-fifth part, is waste. The *Varum* or rent of this is said to be 4,394,075 *Edangailies*, or between 15 and 16 seeds. The average produce would therefore require to be at least 18 seeds, to enable the cultivator to live. Rice-lands.

From the extraordinary manner in which this circle is intersected by rivers, and the neglected state of the banks, and water-courses, owing to the incessant wars and feuds, considerable tracts of rice-land have been inundated, and overgrown with mangroves, and other plants which thrive in salt water. The expense requisite to bring these lands to a productive state is more than the proprietors could afford, unless they were assisted by government. Some few natives, of more spirit and industry than usual, have come forward and undertaken to repair the mounds of particular places, on condition of being exempted from revenue for the space of four or six

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years. This is, however, scarcely sufficient encouragement, even for those who have money.

Plantations.

After deducting the third part of *Cherical*, too barren for cultivation, and the small quantity of low rice land, all the remainder, or at least one half of the country, might probably be formed into plantations. The plantations at present rated in the public accompts are 19,048. These are stated to contain the following taxable trees.

Jack trees in perfection ...	... 17,330	
Ditto young and old ...	... 8,635	
		25,965
Coco-nut palms in perfection	... 168,618	
Ditto young and old ...	... 169,257	
		237,875
Betel-nut palms in perfection	... 100,757	
Ditto young and old ...	... 40,535	
		141,292
Brab palms in perfection ...	... 265	
Ditto young and old ...	... 250	
		515
Pepper vines in perfection ...	... 45,077	
Ditto young and old...	... 33,363	
		78,440

The best soil for forming new plantations is, in general, at a great distance from the sea, and from the *Moplays*, who alone possess any spirit in agriculture.

Ponna cultivation.

The hill-land, not occupied by these gardens, is commonly once in ten or twelve years cultivated after the *Ponna* fashion, as I have described at *Tellichery*. The principal grain sown is the hill-rice, on which the inhabitants of the interior chiefly depend for a subsistence. There are also sown some *Shamay* (*Panicum miliare*), *Ellu* (*Sesamum*), and *Pyru* (legumes); and with every crop raised on this kind of ground some cotton seeds are mixed. Mr. Hodgson thinks that, if attention were paid to the cultivation of this last article, and of sugar-cane, much advantage would accrue to the country.

Population and stock.

The number of houses in *Cananore* and *Cherical*, is 10,386, and there are 4670 slaves, of whom 2080 are men, 1890 are women, and 700 are children. The ploughs are 4994. The cattle of the cow kind 18,514, of the buffalo kind 11,028.

The exports and imports by sea and land, for the years 1799 and 1800, in the district under Mr. Hodgson's management, will be seen by the extracts from the Custom House accompts, given in the APPENDIX at the end.

Panicars, or hired servants.

In *Cherical* and *Cotay-hutty* there are slaves, chiefly of the *Poliar* and *Pariar* castes: but the greater part of the cultivation is carried on by *Panicar*, or hired men, who are *Nairs*, *Moplays*, and *Tiars*. These *Panicars* are at liberty to change their service whenever they please, unless they be indebted to their master; and about one half of them are in that state. They work from morning to noon

when they are allowed an hour for breakfast. They then work until evening, and all night they watch the crops. The master gives the servant a hut, a piece of cloth twice a year, from 6 to 12 silver *Fanams* (27½ to 55 pence) annually for oil and salt, and a daily allowance of rice, which is larger than that given to the slaves. When the servant is in debt, stoppages from this allowance are made. The *Panicars* are frequently flogged; and, as their masters are not bound to provide for them in old age, or during famine, they seem to be in a worse condition than the slaves. Their wives and children, if they do any work for the master, get wages. 1801. Jan. 14.

15th *January*.—I went about ten miles to *Cavai*, on the north side of Mount *Dilla*. The road at first conducted me over uncultivated hilly land. About three miles from *Cavai* I entered a plain extending to the sea; and, like most others on the coast of *Malabar* much intersected by salt water creeks, that are a great interruption to travelling, even where they are fordable. I was under the necessity of being ferried over one salt water river. The whole of the plain consists of rice ground called *Vaylu*, and the soil is very poor. Near the sea shore the ground is somewhat higher, is called *Parumba*, and is fit for the cultivation of the coco-nut. A very small part of this is planted, the remainder is quite waste. Jan 15. Appearance of the country.

On the sea-coast, all the way north from *Cananore*, there is much of this poor, level rice-ground, called *Vaylu*. The following is the manner in which it is cultivated. Between the 12th of January and the 10th of April the women cut the long grass, which on such places grows very thick. They then burn it, and the ashes serve for manure. The men then, with a short handled hoe, dig the field to the depth of five or six inches. A few, instead of digging the field, plough it twice; but this is reckoned more expensive. In both cases, the women break the clods with a mallet. Three men, or one plough, can in one day prepare 10 *Edangallies* sowing of land, or 10,000 square feet. Between the 11th of April and the 11th of May, when the first rains come, the unprepared seed is sown broadcast. Previous to this, some allow the field another ploughing; but in general this is neglected. The seed is covered either by another hoeing, or by two ploughings. The crop gets one or two weedings; and the field, previous to its being sown, ought to be well manured with ashes, cow-dung, and leaves. The kinds of rice used for seed vary according to the nature of the soil. Cultivation of the *Vaylu* rice-land.

Chin'nellu *Vachun* *Alicanum* *Caruma* *Chiroratan*	These require to have a little clay in the soil, and get two weedings. They ripen in six months, and in a good crop produce ten seeds.
Tucun *Madacun*	These grow in almost pure sand; require only one weeding, and ripen in four months. In years that have little rain, they are liable to fail altogether, but in good seasons produce five seeds.

1801. Jan. 15.

Wortadien ... Is sowed in places impregnated with salt. It is allowed one weeding, ripens in four months, and in a good season produces five seeds.

This kind of rice-land produces no second crop of any kind.

On measuring two fields, said each to require 15 *Edangallies* of seed, I found the one to contain 990 square feet for the *Edangally*, and the other 1029. A thousand square feet may therefore be considered as requiring one *Edangally* of seed, and the *Edangally* here contains $91\frac{1}{4}$ cubical inches; so that the seed for an acre is $1\frac{864}{1000}$ bushel, and the produce, from the same, is from $18\frac{1}{2}$ to $9\frac{1}{4}$ bushels. This is rather thinner sowing than what I found in use at *Calicut*, but the soil here is poorer.

Cavai. *Cavai* is a small *Moplay* town, containing 60 or 70 houses. The inhabitants remember, that in the year 925 ($17\frac{49}{50}$) the English had a factory among them. It consisted of a *Pandiala*, or bankshall, which Dutch word has now in general been adapted by the natives of the whole coast. In the year 926 the French built a fort on the south side of the river, where they remained ten years. Afterwards an *Elia Raja*, as the husband of the *Biby* of *Cananore* is called, built a fort on each side of the southern river. These two forts are now in ruins; and the influence of the *Cananore* family has been entirely superseded by that of *Chouacara Mousa* of *Tellichery*, whose authority extends unrivalled over the *Moplays*, all the way from *Cavai* to *Mangalore*.

Moplays. The *Moplays* of the place I found very intelligent and communicative. They did not conceal their hatred to the *Nairs*: and, however much these and the *Namburis* may be discontented, as I believe they almost universally are, their only safety depends on the English retaining the province. If left to their own strength, the *Moplays* would very soon force them to retire into the woods and mountains, to which they were confined when the English arrived.

General appearance of *Malabar*. *Malabar* province, which I am now about to quit, may be divided into two portions. By far the most extensive part consists of low hills, separated by narrow vallies; and from the *Ghats* this always extends a considerable distance to the westward, and sometimes even to the sea. These hills, when cleared, are called *Parum*, or *Parumba*; and when covered with trees, which are only cut down once in ten or twelve years, they are called *Ponna* or *Ponnum*. They are seldom of any considerable height, but in general have steep sides and level summits. The sides possess the best soil; and in *Parum* land, in order to prevent the soil from being washed away by the rain, are formed into terraces. The summits in many places are bare; and, especially towards the north, expose to the view large surfaces of naked rock. The vallies, called *Candum* or *Paddum* land, contain in general rivulets that convey away the superfluous water: but in some places, the level is not sufficient; and in the rainy season the grounds are much overflowed. The soil in these vallies is extremely fertile.

The other portion of *Malabar* consists of a poor sandy soil, and is

confined to the plains on the sea coast, seldom above three miles wide, 1801. Jan. 15
and in general not so much. Near the low hills, these plains are in general the most level, and best fitted for the cultivation of rice. Nearer the sea, they are more unequal in their surface, and rise into low downs, which form a kind of *Parum* land admirably adapted for the coco-nut palm. This division of the country is wonderfully intersected by inlets from the sea, which often run for great lengths parallel to the coast, receiving the various mountain streams, and communicating with the ocean by different narrow and shallow openings. In other places, where there are none of these salt inlets, the low land within the downs on the coast is in the rainy season totally overflowed; for the fresh water has then no vent, and must therefore stagnate, until it is gradually evaporated. As it dries up, it leaves the ground fit for some particular kinds of rice; and it is probably owing to this cultivation, that these stagnant waters do not impair the salubrity of the air. All *Malabar* may indeed be considered as a healthy country, and one upon which nature has bestowed uncommon advantages.

CHAPTER XIV.

JOURNEY THROUGH THE SOUTHERN PARTS OF CANARA.

1801. Jan 15. Mr Ravenshaw's answers to my queries.

Before I proceed to give an account of my journey through the province of *Canara*, I shall prepare my reader, by detailing the answers which were sent to my queries by Mr. Ravenshaw, the collector of the southern division; a young gentleman who does credit to the school of Colonel Read, and to Mr. Hurdis, under whom he was formed to business.

Query 1st. What proportion of your district consists of land that has always been uncultivated? Of this, what part might, with proper management, be converted into rice-ground? what part into coco-nut or *Betel-nut* gardens? What proportion of this waste land is now cleared for grass, what is under forest, and what is enclosed for plantations of timber trees, firewood, &c.?

Answer. No account of the extent of jungles (forests) has ever been taken. All the surveys that have been made only went to ascertain the cultivated lands, and those capable of culture, but not at present cultivated, and which are 111,965½* *Morays.* Of this, 24,181 *Morays* are cleared for grass, 7,043 have a capability of being converted into rice ground, and 1,789 are fit for gardens. No account is kept of the quantity enclosed for timber, but all the remainder would answer for the purpose. N. B. The average *Moray* is 45 *Guntas*, each 33 feet square, or 49,005 square feet, and is therefore nearly $1\frac{13}{100}$ acre.

Q. 2d. What proportion of your district consists of rice-land? Of this, what proportion has been cultivated last year, what has been waste or unoccupied?

A. 247,218 *Morays*; of which 225,782 were cultivated, and the remainder was waste, owing to a want of tenants. Of that which was cultivated, 1,591 *Morays* were overflowed, and the crops destroyed.

Q. 3d. What proportion of your district consists of garden grounds? In these, how many coco-nut or *Betel-nut* trees, and trees for supporting pepper vines, are planted? Is the estimate of these founded on any recent survey, or from an old valuation?

A. The number of trees contained in the gardens, according to the public accompts, are, coco-nut 695,060, *Betel-nut,* 1,155,850, *Mangos* 59,772, sundries 54,362, pepper vines 368,828. This esti-

mate is formed from an old survey made in the year 179⅔. The number of trees, of each description, is at least double of what is here mentioned. 1801. Jan. 15.

Q. 4th. How many ploughs are there in your district ?
A. 71,716.
Q. 5th. How many slaves of all ages, and both sexes ?
A. 7,924.
Q. 6th. How many houses ?
A. 71,856.
Q. 7th. Of these, how many are inhabited by Christians ?
A. 2,545.
Q. 8th. How many by Mussulmans, including *Moplays* ?
A. 5,223.
Q. 9th. How many by *Bráhmáns*, including *Namburis* ?
A. 7,187, exclusive of *Kankánies*, the *Bráhmáns* of which nation are confounded with the other castes.
Q. 10th. How many by *Jain* ?
A. 2,700.
Q. 11th. How many by those who wear the *Lingam* ?
A. 880.
Q. 12th. How many by *Nairs* ?
A. 788.
Q. 13th. How many by *Massady Buntars* ?
A. 7,123.
Q. 14th. How many by *Jain Buntars* ?
A. 1,060.
Q. 15th. How many by *Kankánies* ?
A. 2,434.
Q. 16th. How many animals of the cow kind are there in your district ?
A. Cows 62,130, males 98,860, calves 59,109.
Q. 17th. How many animals of the buffalo kind ?
A. Females 12,129, males 43,596, calves 6,882.
Q. 18th. What quantity of seed rice is sown annually ? As the *Hany* differs in different districts, it will be necessary to state this in *Morays* of *Mangalore*, or at least to state the proportion which the *Hany* of each district has to that measure.
A. 236,374 *Morays* of 60 *Mangalore Hanies*. N. B. This *Moray* contains 3,847½ cubical inches; the seed therefore is about 423,000 bushels.
Q. 19th. What goods are exported by the sea from your portion of *Canara*, and to what annual amount ?
Q. 20th. What goods are imported by sea, and to what annual amount ?
Q. 21st. What goods are exported from your division of *Canara* by land, and to what annual amount ?
Q. 22d. What goods are imported by land, and to what annual amount ?

1801. Jan. 15.

A. Annexed are statements of the exports and imports by sea, from the revenue accompts, for two years during the government of the *Sultan*; and for one year, since the country has come under the government of the Company.

General statement of commerce by sea.

The particulars of this commerce will be seen by consulting these: I shall, however, state the general result.

Account of the exports and imports into *Mangalore Taluc* (district) by sea.

	Imports.			Exports.		
	Pagodas	*Fans.*	*Anas.*	*Pagodas*	*Fans.*	*Anas.*
Fusly or revenue year 1203	39,118	5	14¾	58,581	4	2½
Ditto 1205	13,641	6	2	68,903	0	3
Ditto 1210	84,461	7	19	172,427	2	10

From this will be evident, the immense benefit that the country has received by a change of government.

Commerce by land.

No custom-house accompt has been forwarded of the exports and imports by land; but Mr. Ravenshaw states the former to consist chiefly of salt, salt-fish, *Betel-nut,* ginger, coco-nuts, coco-nut oil, and raw-silk, to the annual amount of 20,388 *Pagodas.* The imports are chiefly cloths, cotton thread, blankets, tobacco, and black cattle, with a small quantity of pepper, and sandal wood, to the amount of 37,455 *Pagodas.* The balance, in favour of the division of the province under Mr. Ravenshaw, is therefore 70,899 *Pagodas,* each worth at the mint price very nearly 8*s.* 0¾*d.*

Along with these answers to my queries, Mr. Ravenshaw most obligingly sent me some valuable statements relative to the quantity of seed required for rice lands, and to the quantity of produce, of which I shall hereafter avail myself. He also favoured me with a statement of the population made up about this time; and reliance may be placed on its accuracy with respect to numbers. I have taken the liberty of altering the orthography, to make it conformable to the other parts of my account. The different castes are detailed in the usual confused manner, with which they are spoken of by the native officers of revenue.

Population.

ACCOUNT of SEA CUSTOMS collected in

ACCOUNT of SEA CUSTOMS collected in the Year *Anundasumaswara* or *Fusly* 1203 in the *Talook of Mangalore.*

IMPORTED.

No.	ARTICLES.	Weighing Articles.			Measuring Articles.			Extra Articles	Pieces.	Parcels.	Corge, or Score by Number.		Price.			Customs.		
		Candies.	Maunds.	Seers.	Corges of 42 Morays.	Morays.	Hanies.						Pagodas.	Fanams.	Anas.	Pagodas.	Fanams.	Anas.
1	Chawl, or Rice				16	30	21						771	2	8	21	9	5
2	Separee, or Betel-Nut	12	15										133	8	12	1	2	12
3	Neshpany Dagah, or Silk Thread		8										296			19	4	7
4	Chinni Sacar, or Sugar	51											1122			102	2	2
5	Kahdy Sacar, or Sugar Candy	9	19	20									435	1	9¼	25	7	5
6	Ilachy, or kismess, or Plums	13	15										171	8	12	21	4	9
7	Gundagum, or Brimstone	13	5										112	6	4	17	8	4
8	Jeera, or Cummin Seed	9	14	20									141	6		17	8	4
9	Hing, or Asafœtida	1	12	30									114	6	4	5	6	4
10	Badam, or Almonds	12	3	10									206	7	10	22	7	2
11	Kansoo Catha	3	10										52	5		6	6	7
12	Ganja, or Flowers of Hemp	6	19										347	5		19	9	10
13	Cajure, or Dates	122	11										615	2	8	106	5	6
14	Kank, or Dry Dates	11	14	20									93	8		11	6	2
15	Ajuvan, a Seed like Anise	7	19	20									69	7	13	8	1	2
16	Tanbacu, or Tobacco	110	30										1870	6	6	143	9	3
17	Gope Chundan, a kind of Earth	21	7	20									90	8	7	16	6	9
18	Piagee, or Onions	55											158	1	4	25	4	5
19	Ambly, or Tamarinds	29	8										147		5	17	8	5
20	Loah, or Iron	18											157	5		11	2	8
21	Copri, or Dry Coco-nut Kernels	96	7	20									674	6	4	83	3	12
22	Sis, or Lead	1	1	30									19	5	9	2		6
23	Tamba, or Brass		11	30									36	6	14	1	7	12
24	Cupper Sootoo, or Tutenague		17	20									18	5	10	1	6	7
25	Aridall		9	20									11	3	2	1		5
26	Cathilla	1											55			2	9	8
27	Navasagur		8										15	7	8		6	3
28	Jasthah Mathon, a wood	1	15										13	1	4	2	9	
29	Kachorah, a Root		4										4	5			4	5
30	Lobanah		11	20									85	3		1	4	10
31	Safeth Daga, or white Thread		9										14	4			7	9
32	Sabashigy		14	20									7	5	3½		7	13
33	Malakedub	3	2										31			3	2	3
34	Ghee, or Melted Butter		7										9	4	8		5	8
35	Pathang Lakdy, or Red wood		4	30									2	1	15½		2	8
36	Opium		1										14			1	1	10
37	Lavangum or Cloves		2	30									6	2	8	3	8	12
38	Daniah, or Coriander Seeds	5	7	30									53	8	13	4	7	8
39	Katha, or Cordage	4	11										22	7	8	2	4	8
40	Till, or Oil	5	16										46	8		4	1	10
41	Shora Namuck, Saltpetre		10										5	7	8		2	8
42	Caddy Pallah																	
43	Naga Ressara																	
44	Calli Merchy, or Black Pepper																	
45	Alldey, or Saffron																	
46	Dalachinnes, Cassia																	
47	Rubi, or Cotton	26		20									539	7	11	30	2	2
48	Gooll Jagory																	
49	Lol Mirche, or Capsicum																	
50	Googal, a Resin or Frankincense		16	30									23		5	1	9	
51	Aldruck, or Ginger																	
52	Shawls										1¼	4	145			6	6	14
53	Tafftah, Taffetas										34½	2¼	1419	6	4	125	5	11
54	Avarunga Sail Saddy, Cloth										24½	4	827	4	8	83	8	
55	Kincaff, Silk Cloth										3¼		497	2	8	16	9	14
56	Rismany Cashe Ditto										1¼	1	115	2		5	4	7
57	Mushroo, Cloth										62½		2350	3	12	149	5	8
58	Pithambri Saddy, or two sorts of Cloth										2¼	1	92			5	5	
59	Malthay, Cloth										32	3	996	6	8	69	2	13
60	Rishmany Illachy Suci, Ditto										6¼	2½	474	8	12	34	1	
61	Ditto, Roomaal, or Handkerchief										13	4	369	6		27	6	12
62	Kaipatteb, Cloth	7	3										289	5	12	13	4	12
63	Hainab, or looking Glasses										6¾	1½	45	9	11	6	4	13
64	Surattya Chirits, Cloth										32½	4½	317	2	8	27	7	1
65	Pallang Poss, or sheets, ditto										16		130			12	5	7
66	Sucy Illachey, ditto										32¾	3½	485	9	15	30	8	12
67	Canga, or blue Cloth										571½		10049	3	12	517	9	2
68	Muscatty Leengy, Cloth										38¼	1	899	4	12	40	2	4
69	Kutchy or Parkala, two sorts of ditto										173		4325	6	4	178		12
70	Jumbkanak, or Carpet										8½		44	6	4	5	2	11
71	Sinnee Narmuddy, Cloth										28¼	4½	258		12¾	16	4	19
72	Karwah, Coarse Cotton Cloth										54	1	221		1	30		
73	Daib Cloth										41		200			20	10	
74	Pagdy, or Turbans										17	1½	1457	2	4	42	3	6
75	Kumbawathy, Cloth											3	15				7	2
76	Amaroo ditto											4	9				5	1
77	Jarukaty Calla Kumalla										2½	2	43		8	3	6	2
78	Salloo Saddy, Cloth										1¾	2½	79	6	14	2	8	14
79	Thevassy, ditto										1¼	4	16	3	2	1		15
80	Nawarah Undah, ditto											4	1	2	8		1	4
81	Razay, Chintz										1	1	6	3			6	10
82	Safeth Shellah, or White Cloth										1¼	3	15	4		1		7
83	Surte Caspe, Cloth										3		25	5		1	2	6
84	Calligy, ditto										9¼	1½	270	4	4	19	6	9
85	Nawaby, ditto										42½	1½	691	9	5	76	9	
86	Nummuck, or Salt, (Cumba 8½ 6)												755	3	12	31	7	8
87	Withallah										9	11	260	3	10	13	5	3
88	Narell, or Coco-nuts								186990				6			69	7	
89	Comple Moss, Fish								34¼				206	8	7	8	8	1
90	Boria, or Matts								31000				93			5	8	2
91	Capdeh Cutteyor, Cloth Bundles								8				382			10	8	4
92	Talawar Taff, or Swords								21				7	5			9	2
93	Cagath Regnee, or Paper Reams								29				25	3	12	4	1	8
94	Jarick Ranaray Goat,				1								27				7	11
95	Chapetty, or Tea in Boxes								8				24			1	5	
96	Mingurry Cutt, or Fish Fins																	
97	Adody, or Leather																	
98	Banath, or Sackcloth									1			3				2	8
99	Cirkah Pitty, or Vinegar Pipes								19½				32	6	4	1	4	11
100	Coobveh, or clean Rice Bags																	
101	Mailhug, or Salt Fish, (118 Bundles)								14200				316	5		30	8	14
102	Cutcha Sufeth Runall, or Handkerchiefs										94½		147	5		8	8	9
103	Kungi, or Combs										26		20	3	2	1	2	3
104	Kengany Ricab, China ware										3		4	7			2	3
105	Lakly Kinarah Babut Hyna, or Looking Glasses										14½		6	6	15		4	3
106	Hynuck, Spectacles										2		1	5	10			5
107	Mushooru Topi										10		18	7	8	1	1	4
108	Pittalka Tarass										6¾		8	4	6		5	1
109	Virrannah, or Fans										6		3	7	8		2	4
110	Sitally Wallah								40				6	2	8		3	12
111	Suhi, or Needles								21000				15	6	4		9	6
112	Chamdekv Baldy, or Leather Pots										2		1	5	10			15
113	Chapli Joddah, or Malabar Shoes										1		1	5	10			15
114	Path Cothaday								3				5	6	4		3	6
115	Panuah, or Lanterns								5				3	7	8		2	4
116	Bilawara Sishaw								15				1	8	12		1	2
117	Taftha Chattery, or Silk Umbrellas								1				1	8	12		1	2
118	Pingany Kattora Chotti, and Badda								37000				115	6	4	6	9	6
119	Anchorage Duties for Boats } Different kinds of Vessels.								15							9	6	4
120	Ditto for Sibadey								2							3		
121	Ditto for Boats								1							3	6	4
122	Ditto Munchoes								4							7	6	4
123	Ditto Lahvaddy								2							1	1	4
124	Ditto Chanbuk								12							6	7	8
125	Ditto Balla								4							6	2	8
126	Ditto Manjee								61							39	3	2
127	Ditto Pattamars								43							49	9	6
128	Ditto Magh Herry								32							22		
129	Ditto Doney								59							18	3	12
											Total		39118	5	14¾	2800	1	10

EXPORTED.

No.	Weighing Articles. Candies.	Maunds.	Seers.	Measuring Articles. Corges of 42 Morays.	Morays.	Hanies.	Extra Articles.	Score.	Pieces.	Parcels.	Price. Pagodas.	Fanams.	Anas.	Customs. Pagodas.	Fanams.	Anas.	Total Customs. Pagodas.	Fanams.	Anas.
1				4127	21¼						56677	7	8	11142		14	11164		3
2	74	9	10								781	8	9	302		5	303	3	1
3																	19	4	7
4																	102	2	2
5																	25	7	5
6																	21	4	9
7																	17	8	4
8																	17	8	4
9																	5	6	4
10																	22	7	2
11																	6	6	7
12																	19	9	10
13	9	1									46			3	5	15	110	1	5
14																	11	6	2
15																	8	1	2
16	3										51			1	2	14	145	2	1
17																	16	6	9
18		17									2	1	9		1	4	25	5	9
19																	17	8	5
20	5	8									47	2	8	1	5	14	12	8	6
21																	83	3	10
22																	2		
23																	1	7	12
24																	1	6	7
25																	1		5
26																	2	9	8
27																		6	
28		4									1	5			1	10	3		
29																		4	5
30																	1	4	10
31																		7	9
32																		7	13
33																	3	2	3
34																		5	6
35																		2	8
36																	1	1	10
37																	3	8	12
38																	4	7	8
39																	2	4	8
40																	4	1	10
41																		2	8
42		10									7	8	12		3	5		3	5
43		2	20								1	1	4			15			15
44	5	10									192	5		11	8	7	11	8	
45	19	16	10								178	3	3½	9	8	10	9	8	
46	5	11	20								40	3	15	2	5	6	2	5	
47																	30	2	2
48	36	16									220	8		9	5	1	9	5	1
49	5	1									42	9	4	1	5	11	1	5	11
50																	1	9	
51	1										3				3	11		3	11
52																	6	6	14
53																	125	5	11
54																	83	8	
55																	16	9	14
56																	5	4	7
57																	149	5	8
58																	5	5	
59																	69	2	3
60																	34	1	
61																	27		2
62																	13	4	2
63																	6	4	13
64																	27	7	1
65																	12	5	7
66																	30	8	12
67									4½		50	5		1	7		519	6	2
68																	40	2	4
69																	178		12
70																	5	2	11
71																	16	4	9
72																			
73																	20	10	
74																	42	3	6
75																		7	2
76																		5	1
77																	3	6	2
78																	2	8	14
79																	1		15
80																		1	4
81																		6	10
82																	1		7
83																	1	2	6
84																	19	6	9
85																	76	9	
86																	31	7	8
87									9		5		10		2	14	13	8	10
88																	69	7	
89																	8	8	1
90																	5	8	2
91																	10	8	4
92																		9	12
93																	4	1	8
94																		7	11
95																	1	5	
96								15			45			2	8	2	2	8	2
97								140			21			1	3	2	1	3	2
98																		2	8
99																	1	4	11
100								60			90			3	7	8	3	7	8
101								1576			75	9		3	3		34	1	14
102																	8	8	9
103																	1	2	3
104																		2	13
105																		4	3
106																			15
107																	1	1	4
108																		5	1
109																		2	4
110																		3	12
111																		9	6
112																			15
113																			15
114																		3	6
115																		2	4
116																		1	2
117																		1	2
118																	6	9	6
119																	9	6	4
120																	3		
121																	3	6	11
122																	7	6	4
123																	1	1	4
124																	6	7	8
125																	6	2	8
126																	39	3	2
127																	49	9	6
128																	22		
129																	18	3	
Total											58581	4	2½	11400	3	6	14176		2

ACCOUNT of SEA CUSTOMS collected in the Year *Nulasamaswar* or *Fusly* 1205 in the *Talk* of *Mangalore*.

IMPORTED.

No.	ARTICLES.	Weighing Articles.			Measuring Articles.			Extra Articles.	Pieces.	Parcels.	Corge, or Score by Number.		Price.			Customs.		
		Candies.	Maunds.	Seers.	Corges of 42 Morays.	Morays.	Hanies.						Pagodas.	Fanams.	Anas.	Pagodas.	Fanams.	Anas.
1	Biam, or Rice																	
2	Suparee, or Betel-nut	99											909			22	4	
3	Reshmany Daga, Silk Thread		1	29									31	9		3	4	2
4	Chinni Saccar, or Sugar	21	4	10									350		1	38	8	12
5	Chathila, or Tutenague		9	20									30	8	12	1	5	
6	Sisa, or Lead		9	20									10	9	4		9	9
7	Aridalla		6	30									13	5	2		8	12
8	Karpura, or Camphor		17										120	5		4	1	10
9	Lobauni, or Incense		17	20									43	7	4	2	2	15
10	Shora Nummuck, or Salt Petre	3	12										44	3	5	6	4	
11	Thigdeh		2	20									2	1	14		2	8
12	Jeera, or Cummin Seed	4	11										81	9		8	8	1
13	Kala Mirchy, or Black Pepper																	
14	Cotha	2	6										37	9	8	4	4	10
15	Mour, or Wax	1	12										32			1	6	14
16	Cajure, or Dates	15	15	20									86		15	12	7	2
17	Karick	6	2										56	1	12	5	3	4
18	Pathang Lakdy, or Red Wood		15	20									5	1	12		7	4
19	Alady																	
20	Sanap, or Twine	1	19	20									16	2	15	1	9	4
21	Haiputty, or Canvas	17	10										1137	5		44	9	6
22	Tamback, or Tobacco	11	6	20									155	7	2	13	7	
23	Raday Sacar, or Sugar Candy		2										5				2	15
24	Golaloo Battah		2	20									3	1	4		1	12
25	Papada Kahray	2											10			1	7	13
26	Isabgola		3		—								1	6	14		1	9
27	Rubi, or Cotton	42	6	10									846	8	8	47	6	
28	Humbly, or Tamarinds		16										2	7			3	1
29	Lal Mirch, or Capsicum																	
30	Goola, or Jagory																	
31	Katha, or Cordage	7	19										39	7	4	4	4	11
32	Peajee, or Onions	6	6	20									22	1	4	3	1	3
33	Lassoow, or Garlick																	
34	Gopy Chundun	11	8										62	7		6	1	3
35	Coppree, or Coco-nut Kernels	85											595			71	1	14
36	Tell, or Oil	21	5	20									1 0	3	8	15	7	13
37	Kadapilla																	
38	Shawl										2	3	344			12	9	14
39	Safith Baptah, or Cloth										3½	1½	178	7	8	13	5	2
40	Mushroo, ditto										22¾		910			52	8	7
41	Mogah Shaddy ditto										2¼	1	75	9		5	2	5
42	Reshmany Soocy, ditto											2	3	5			2	4
43	Nawabby, ditto										2		45			4	8	
44	Charkenee Sucy, ditto										¼		5	6	4		5	1
45	Illeby Sucy, ditto										14		196			12	1	9
46	Soorty, Chintz										18½	3	144	5	10	14	1	15
47	Palangposs, or Counterpanes										2¼	1	23			1	8	6
48	Cathey, Cloth										41½	⅓	446	1	15	30	9	10
49	Jamkana, or Carpet										7½	3	57	3	12	4	7	12
50	Chitty Pagdy, Turbans										1¼	1	11	3	12		8	11
51	Shadday, or Womens' Cloth										1¾	3¼	62	5	10	2	4	10
52	Lungy Passoddy, Cloth										¾	1	25				9	6
53	Pokattay, ditto										11¼		221	6	14	10	7	13
54	Shilla, ditto										11	2	152	6	4	8	7	3
55	Manapadd Kutcha, ditto										29	¼	1041	2	8	36		11
56	Colchy Panchaddy, ditto										11	½	247	5		10	8	14
57	Pasty Manddan, ditto										4¼	4	99			4	3	6
58	Punjy, ditto										1		26	2	8	1	2	10
59	Doothary Chariany, ditto										½	1½	21	8	8		7	15
60	Thwassy, ditto										½		10	7	8		5	1
61	Kassy																	
62	Kigha, or Blue Cloth										120		2400			115	3	5
63	Sunny Narmuddy, Cloth										9¾	1½	88	4	4	5	7	9
64	Dabbully, ditto										13¾	¾	76	4	12	6		8
65	Karwah, ditto										1½		11	2	8		8	8
66	Safeth Rumall, ditto										¼	4	5		10		1	11
67	Chiley Lungy, ditto										5¼	4	122	6	4	5	2	11
68	Bengaly Rumall, ditto										¼	1	10	8	12		6	7
69	Withalla				13	28	21						320	3	9	19	4	1
70	Kagith Resmy							16					44			3		
71	Comblemoss, Fish							3					18				7	8
72	Nareli, or Coco-nut							17000					85			7	1	
73	Sherka Perty							7½					11	2	8		5	10
74	Mashy or Bumbly, Fish Bundles							12606					393	2	4	32	1	14
75	Choo iweh Kattoo							[illegible]										
76	Neemmuck, or Salt Bundles							891¼					668	1	6	31	1	2
77	Maundy Jenuss Babath												40	6	4	2	6	14
78	Anchorage Duties for Dow Dunghie, Boats							16								110	1	4
79	Ditto, for Navaday ditto							6								22	1	4
80	Ditto, for Sibaday ditto							2								4		
81	Ditto, for Wallah ditto							1								1	5	
82	Ditto, for Munchill ditto							4								4	5	
83	Ditto, for Partamars ditto							37								47		10
84	Ditto for Munjee ditto							22								16		
85	Ditto, for Hoolky ditto							9								14		10
86	Ditto, for Chunbuck ditto							15								8	4	6
87	Ditto, for Koondery ditto							1									5	10
88	Ditto, for Toney ditto							6								8	2	8
	Total												13641	6	2	1025	1	2

EXPORTED.

No.	ARTICLES.	Weighing Articles.			Measuring Articles.			Extra Articles.	Score.	Pieces.	Parcels.	Price.			Customs.			Total Customs.		
		Candies.	Maunds.	Seers.	Corges of 42 Morays.		Hanies.					Pagodas.	Fanams.	Anas.	Pagodas.	Fanams.	Anas.	Pagodas.	Fanams.	Anas.
1	Biam, or Rice											67489	5		10200	7	7	10200	7	7
2	Suparee, or Betel-nut				3749	7	21					344	2	8	99	7	10	122	1	10
3	Reshmany Daga, Silk Thread	34	8	20														3	4	2
4	Chinni Saccar, or Sugar																	38	8	12
5	Chathila, or Tutenague																	1	5	
6	Sisa, or Lead																		9	9
7	Aridalla																		8	12
8	Karpura, or Camphor																	4	1	10
9	Lobauni, or Incense																	2	2	15
10	Shora Nummuck, or Salt Petre																	6	4	
11	Thigdeh																		2	8
12	Jeera, or Cummin Seed											8	5	8		2	10	9		11
13	Kala Mirchy, or Black Pepper		9	20								232	7	8	14	3		14	3	
14	Cotha	6	13															4	4	10
15	Mour, or Wax																	1	6	14
16	Cajure, or Dates											29	8	11	1	9	10	14	6	12
17	Karick	4	15	20														5	3	4
18	Pathang Lakdy, or Red Wood																		7	4
19	Alady											307	1	12	15	2	7	15	2	7
20	Sanap, or Twine	27	18	20														1	9	4
21	Haiputty, or Canvas																	44	9	6
22	Tamback, or Tobacco																	13	7	
23	Raday Sacar, or Sugar Candy																		2	15
24	Golaloo Battah																		1	12
25	Papada Kahray																	1	7	13
26	Isabgola																		1	9
27	Rubi, or Cotton																	47	6	
28	Humbly, or Tamarinds																		3	1
29	Lal Mirch, or Capsicum											53	1	4	1	8	14	1	8	14
30	Goola, or Jagory	8	10									99	4	8	3	9		3	9	
31	Katha, or Cordage	16	11	20														4	4	11
32	Peajee, or Onions																	3	1	3
33	Lassoow, or Garlick											6				2	6		2	6
34	Gopy Chundun	1																6	1	3
35	Coppree, or Coco-nut Kernels																	71	1	14
36	Tell, or Oil																	15	7	13
37	Kadapilla											2	5			1	15		1	15
38	Shawl		10															12	9	14
39	Safith Baptah, or Cloth																	13	5	2
40	Mushroo, ditto																	52	8	7
41	Mogah Shaddy ditto																	5	2	5
42	Reshmany Soocy, ditto																		2	4
43	Nawabby, ditto																	4	8	
44	Charkenee Sucy, ditto																		5	1
45	Illeby Sucy, ditto																	12	1	9
46	Soorty, Chintz																	14	1	15
47	Palangposs, or Counterpanes																	1	8	6
48	Cathey, Cloth																	30	9	10
49	Jamkana, or Carpet																	4	7	12
50	Chitty Pagdy, Turbans																		8	11
51	Shadday, or Womens' Cloth								3¼			162	5		4		13	6	5	4
52	Lungy Passoddy, Cloth																		9	6
53	Pokattay, ditto																	10	7	13
54	Shilla, ditto																	8	7	3
55	Manapadd Kutcha, ditto																	36		11
56	Colchy Panchaddy, ditto																	10	8	14
57	Pasty Manddan, ditto																	4	3	6
58	Punjy, ditto																	1	2	10
59	Doothary Chariany, ditto																		7	15
60	Thwassy, ditto																		5	1
61	Kassy											1	2	8		1			1	
62	Kigha, or Blue Cloth																	115	3	5
63	Sunny Narmuddy, Cloth																	5	7	9
64	Dabbully, ditto																	6		8
65	Karwah, ditto																		8	8
66	Safeth Rumall, ditto																		1	11
67	Chiley Lungy, ditto																	5	2	11
68	Bengaly Rumall, ditto																		6	7
69	Withalla				3							103	6		3	9	15	23	4	
70	Kagith Resmy																	3		
71	Comblemoss, Fish																		7	8
72	Nareli, or Coco-nut																	7	1	
73	Sherka Perty																		5	10
74	Mashy or Bumbly, Fish Bundles																	32	1	14
75	Choo iweh Kattoo											62	5		3	1	4	3	1	4
76	Neemmuck, or Salt Bundles																	31	1	2
77	Maundy Jenuss Babath																	2	6	14
78	Anchorage Duties for Dow Dunghie, Boats																	110	1	4
79	Ditto, for Navaday ditto																	22	1	4
80	Ditto, for Sibaday ditto																	4		
81	Ditto, for Wallah ditto																	1	5	
82	Ditto, for Munchill ditto																	4	5	
83	Ditto, for Partamars ditto																	47		10
84	Ditto for Munjee ditto																	16		
85	Ditto, for Hoolky ditto																	14		10
86	Ditto, for Chunbuck ditto																	8	4	6
87	Ditto, for Koondery ditto																		5	10
88	Ditto, for Toney ditto																	8	2	8
	Total											68903		3	10347	7	15	11372	9	1

ACCOUNT of SEA CUSTOMS collected in the Year *Rowdry* or *Fusly* 1210 in the *Talook of Mangalore*.

IMPORTED.

No	ARTICLES.	Weighing Articles. Candies.	Maunds.	Seers.	Measuring Articles. Corges of 42 Morays.	Morays.	Hanies.	Extra Articles.	Pieces.	Parcels.	Corge, or Score by Number.		Price. Pagodas.	Fanams.	Anas.	Customs. Pagodas.	Fanams.	Anas.
1	Chawl, or Rice				69	20							1389	5	4	26	1	2
2	Calli Mirchy, or Black Pepper	49	17										1641	7	8	16	6	
3	Suparo, or Betel-nut	61	14										740	4		6	2	2
4	Maschy, or Sugar Candy	1[illegible]	12	30									713	8		46	3	
5	Cuththa		12	10									8	9	12	1	2	5
6	Kapure, or Camphor		17	7½									328	1	5	10	6	15
7	Lobawn, or Incense		8	10									29	4	6	1	4	12
8	Jeerah, or Cummin Seeds	8	15										173	9	15	18	8	5
9	Nowasacar, or Tin		5	20									13	8	8		7	14
10	Lack, or Sealing Wax		5										7				5	12
11	Cathilla	12	7	30									776	1	14	34	7	7
12	Biligar		3	30									4	5	10		4	3
13	Hing, or Asafœtida	1	6	20									156	9	11	5	1	12
14	Tamba, Pittal, & Kassaund	3	18										330	8	12	15	7	1
15	Reshmany Daga, or Silk Thread		9	9½									231	1	2	20	6	15
16	Mombatty, or Candles	3	3	27¼									364	5	14	12	7	15
17	Drashum	13	9	13½									120	4	2	25		10
18	Jasta Mathoo	6	14										50	2	8	11	5	8
19	Saboon, or Soap	17	9										211	1	12	21	5	2
20	Tobacco	104	2	10									1530	6	6	139	5	7
21	Sanapoo	11	18	10									113	3	3	13	7	9
22	Ganjaw, or dry Flowers of Hemp	17	11										331	7	8	24	8	10
23	Dallchinny, or Cinnamon		1											3				8
24	Ayaputty	15	5	38¼									1015	2	8	50	8	9
25	Daniah, or Coriander Seeds	1	11	20									16		12	1	5	4
26	Peazei, or Onions	107	1										486	9	13	68	9	
27	Til, or Oil	374	5	20									383	7	13	332	6	1
28	Coprah, or Coco-nut Kernels	133	2	20									1577	9	3	113	1	9
29	Lasoon, or Garlic	1	4										7	2			8	4
30	Gudd, or Jagory	2	15	25									16	3	15	1		9
31	Catha, or Cordage	160	18	5									951	9	6	86	2	3
32	Ambly, or Tamarinds	19	3										91	5	2	12	4	4
33	Lala Mirchy, or Capsicum	3	14	30									20	8		1	7	2
34	Tukum Barayne Bejah	1	6	10									8	9	10½	1	4	7
35	Safeth Daga, or White Thread		5	21¼									11	4	6		5	9
36	Caurekay, or Dates	56	3	10									415	4	3	61	9	14
37	Nilly, or Blue-colored Indigo			3										2	8			2
38	Inglicum, or Red Ink		8										4	5			6	8
39	Sajura		7										6				4	7
40	Gond, or Gum Arabic	3	17	10									18	6	4	2	2	15
41	Mahipull		7	30									13	2	8		9	3
42	Cassiassy, Poppy Seed			30										7	8			13
43	Jashawn	1	9	30									92	8	6	5		12
44	Hingadeh		7										6	1			7	5
45	Sandly Til, or Sandal Oil		14	7¾									172	4	4	19	3	1
46	Poonada Beja, or White Cotton		10	20									18	4	8	1	2	
47	Goolaby Fool, or Roses			10										1	4			4
48	Illachey, or Cardamoms			13¼									1					7
49	Assway Gundy		8	20									5	3	2		8	4
50	Gunda Bidu			10									4	3	12		5	2
51	Sahjee Khar		1	20									2	4	6		1	12
52	Manjest, or Madder	4	3	10									70	7	10	8	6	5
53	Badam, or Almonds	5	14	20									91	4	11	11	1	4
54	Angoor, or Pomegranite	1	14										18	6		3	2	4
55	Allua, or Sweetmeats		8	20									6	9	6		8	6
56	Kunkna Caur		2	20									2	1	14		2	7
57	Gunny Surkoo		7	28¼									9	3	6		8	7
58	Putkur, or Alum		9	30									4	6	5		9	1
59	Googelloo, Resin		4	30									2	4	11		4	6
60	Cupper Sooth	4	2	10									115	1	8	9	8	10
61	Kuttuch Rohiny		1										2	1	8		1	8
62	Balla Arraday		1	30									2		2		1	10
63	Thigdy		2										2	3			2	3
64	Pimply		2	30									8	9	2		8	10
65	Cussumby Attah		3	10									3	7	6		3	7
66	Ghee, or boiled Butter	51	1	20									1533	5		9	7	13
67	Paupdah Caur	5	17	20									33	9	14	6	3	5
68	Cajure, or Dates	189	4										1078	2	10	184	3	11
69	Paneer, or Rose Water	1	17										21	2	12	2	1	14
70	Sandal Wood		3	32									4	7	3		1	7
71	Cloves		3	30									72	5		5	4	14
72	Puthry	1	1	3									60	6	14	2	6	15
73	Ajuvaun, a seed like Anise	1		20									12	5		1	5	15
74	Opium			20									5	6	4		5	15
75	Anny Cajure		4	30									9	8			2	9
76	Sherry Lobaun		5	10									1	5	15		2	13
77	Badde Sop	1	5	20									11	1	10½	1	4	12
78	Ralli Dub	4	17	20									37	3	12	2	3	9
79	Rubi, or Cotton	6	15	20									145	4	2	8	3	
80	Lovah, or Iron			27¾									1					6
81	Ununjee		9	30										8	12		1	2
82	Kaury Caur	1	4	20									2	5			6	3
83	Sabinda Lavanah			20										2	8			2
84	Minbassy	6		20									45	1	14	2	2	9
85	China Sacar, or Sugar	200	12										3937	5	10	450		4
86	Tawftah Chittry, Taffetas										24	3¾	853		5	97	4	13
87	Avarunga Shahe, Cloth										1¼	2	61	1		5	7	12
88	Munga Suddy, ditto										16½	½	444	7	10	42	1	10
89	Pillahu Tan, ditto										3½	4½	146	4	4	10	6	
90	Pittambur Suddy, ditto										2	1	84	5	2	5	9	3
91	Pittambur Doputtur, ditto										14	1¾	468	1	14	38		11
92	Reshmany Sucy Illacky, ditto										16	3½	297	6	8	39	1	10
93	Coothney, ditto										67½	4¾	1446	5	6	163	2	1
94	Nawabby, ditto										15	3¼	181	5	3	33	6	6
95	Reshmany Rumallo, ditto										9½	3½	261		4	24	8	4
96	Illachy Sucy, ditto										33¼	4	460	7	8	37		3
97	Kutchey Chittoo, ditto										29½	2¼	343		2	31	1	11
98	Palampous, ditto										15¾	3½	104	4	5	15	9	14
99	Manapaut Cutchey, ditto										103	¾	2980	4	6	146	2	12
100	Porkally Shillah, ditto										40½	3½	515	7	3	89	8	13
101	Dohattus, ditto										43¾	1¼	8100	9	3	48	9	6
102	Caungs, ditto										1279¾	1¾	21864		7	1857		
103	Nankins, ditto										24½	2	428	9	4	26	2	2
104	Muscat Lungy, ditto										49¾	3¼	1052	8	8	29	3	5
105	Nawor Undah, ditto										8	1½	44	7	14	5	4	4
106	Suffeth Chillah, ditto										8¼	4¼	184	6	3	10	1	6
107	Ditto Pugdev, or Turbans										8¼	3¾	147	7	15	9		6
108	Ditto Baughthaw, Cloth										6¼	1¼	71	6	14	5	8	15
109	Chint Pachady, ditto										4¾	2½	69	2	13	4	9	3
110	Cauthey, ditto										47½	3¼	464	1	6	42	7	9
111	Paundey Mundaragueray, ditto										20¼	4	340	5	2	29	9	14
112	Sunny, ditto										11	3	140	3		10	3	13
113	Safeth Dutty, ditto										22¾	1	165	5		16	9	6
114	Dahuby, ditto										45	4	384	7		34	7	4
115	Kaurruy, ditto										31¾	2¼	184	5	12	28		11
116	Zarukanaray Rumaul, ditto										4¾	1¾	174	3	12	9	9	1
117	Shawls										3½		367			19	7	11
118	Gurbsooth Loongy, Cloth										1	3½	30	4	4	2	7	9
119	Callegey Saddy, ditto										23½	4	646	1	4	60		
120	Kinkaub, or Athalass, ditto											4¾	23	8	13	1		2
121	Reshmahny Kins, ditto										3½	½	144	6		9	8	10
122	Humbroo, ditto											¼	3	7	4		2	6
123	Reshmaney Duptah, ditto											1	1	2	8		1	4
124	Chint Razarav, ditto										1¼	1¾	8	4	2	1	1	4

EXPORTED.

No	ARTICLES.	Weighing Articles. Candies.	Maunds.	Seers.	Measuring Articles. Corges of 42 Morays.	Morays.	Hanies.	Extra Articles.	Pieces.	Parcels.	Corge, or Score by Number.		Price. Pagodas.	Fanams.	Anas.	Customs. Pagodas.	Fanams.	Anas.	Total Customs. Pagodas.	Fanams.	Anas.
1	Chawl, or Rice				7080	11	21						141605	4	6	14178	7		14204	8	2
2	Calli Mirchy, or Black Pepper	460	12	20									15200	6	4	1007	5	2	1024	1	2
3	Suparo, or Betel-nut	144	19	25									1739	7	12	393	3	2	396	5	4
4	Maschy, or Sugar Candy		3	10									6	5			2	8	46	5	8
5	Cuththa																		1	2	5
6	Kapure, or Camphor																		10	6	15
7	Lobawn, or Incense																		1	4	12
8	Jeerah, or Cummin Seeds		1	30									1	7	10			13	18	9	6
9	Nowasacar, or Tin																			7	14
10	Lack, or Sealing Wax	1	16	20									39	5	6	2		14	2	6	10
11	Cathilla																		34	7	7
12	Biligar																			4	3
13	Hing, or Asafœtida																		5	1	12
14	Tamba, Pittal, & Kassaund																		15	7	1
15	Reshmany Daga, or Silk Thread																		20	6	15
16	Mombatty, or Candles																		12	7	15
17	Drashum	2	5										19	8	2	1	7	4	26	7	14
18	Jasta Mathoo	5	9										38	1	8	3	6	15	15	2	7
19	Saboon, or Soap																		21	5	2
20	Tobacco																		139	5	7
21	Sanapoo																		13	7	9
22	Ganjaw, or dry Flowers of Hemp		3										2	8	8			6	24	9	
23	Dallchinny, or Cinnamon	6											42	4		2	0	9	2	7	1
24	Ayaputty		1										4	5			1	2	50	9	11
25	Daniah, or Coriander Seeds	3	3	20									24	3		1		5	2	5	9
26	Peazei, or Onions																		68	9	
27	Til, or Oil																		332	6	1
28	Coprah, or Coco-nut Kernels	4	15										41	5	10	1	8	12	115		5
29	Lasoon, or Garlic	27	18	11¾									164	6	15	6	0	15	7	8	3
30	Gudd, or Jagory	2	18	11¾									23	1	1		8	2	2	7	2
31	Catha, or Cordage	28	19	30									153		14	6	4	7	902	6	10
32	Ambly, or Tamarinds																		12	4	4
33	Lala Mirchy, or Capsicum	25	1	4¼									176	2	1	8			9	7	2
34	Tukum Barayne Bejah																		1	4	7
35	Safeth Daga, or White Thread	5	9	10									22		14		8	5	1	3	4
36	Caurekay, or Dates	12	4	30									83	9	12	5	5	3	67	5	1
37	Nilly, or Blue-colored Indigo																				2
38	Inglicum, or Red Ink																			6	8
39	Sajura																			4	7
40	Gond, or Gum Arabic																		2	2	15
41	Mahipull																			9	3
42	Cassiassy, Poppy Seed																				13
43	Jashawn		13	30									27	5			4	1	5	4	13
44	Hingadeh																			7	5
45	Sandly Til, or Sandal Oil		7	20¾									160			8	2	3	27	5	4
46	Poonada Beja, or White Cotton																		1	2	
47	Goolaby Fool, or Roses																				4
48	Illachey, or Cardamoms		2	10									18	5	10		5	10		6	1
49	Assway Gundy																			8	4
50	Gunda Bidu																			5	2
51	Sahjee Khar																			1	12
52	Manjest, or Madder		19	20									220	5	9	12	6	13	21	3	2
53	Badam, or Almonds	1	15										27	6	4	1	6	6	13	2	10
54	Angoor, or Pomegranite																		3	2	4
55	Allua, or Sweetmeats																			8	6
56	Kunkna Caur																			2	7
57	Gunny Surkoo																			8	7
58	Putkur, or Alum																			9	1
59	Googelloo, Resin																			4	6
60	Cupper Sooth																		9	8	10
61	Kuttuch Rohiny																			1	8
62	Balla Arraday																			1	10
63	Thigdy																			2	3
64	Pimply																			8	10
65	Cussumby Attah																			3	7
66	Ghee, or boiled Butter																		9	7	13
67	Paupdah Caur																		6	3	5
68	Cajure, or Dates	14	4	20									70	9	12	5	7	3	190		2
69	Paneer, or Rose Water																		2	1	14
70	Sandal Wood	3	10	20									92	7		6	7	7	6	8	14
71	Cloves																		5	4	14
72	Puthry																		2	6	15
73	Ajuvaun, a seed like Anise		4	20									2	9	12		2	6	1	8	5
74	Opium																			5	15
75	Anny Cajure																			2	9
76	Sherry Lobaun																			2	13
77	Badde Sop																		1	4	12
78	Ralli Dub																		2	3	9
79	Rubi, or Cotton	1	2	20									23	3	7		7	13	8	8	
80	Lovah, or Iron	6	11	30									91	9	2	3		13	3	1	3
81	Ununjee																			1	2
82	Kaury Caur																			6	3
83	Sabinda Lavanah																				2
84	Minbassy																		2	2	9
85	China Sacar, or Sugar	72	3	30									443	7	8	80	5	11	730	5	15
86	Tawftah Chittry, Taffetas																		97	4	13
87	Avarunga Shahe, Cloth																		5	7	12
88	Munga Suddy, ditto																		42	1	10
89	Pillahu Tan, ditto																		10	6	
90	Pittambur Suddy, ditto																		5	9	3
91	Pittambur Doputtur, ditto																		38		11
92	Reshmany Sucy Illacky, ditto																		39	1	10
93	Coothney, ditto										1	1	23	6	4	1	1	8	164	3	9
94	Nawabby, ditto																		33	6	6
95	Reshmany Rumallo, ditto																		24	8	4
96	Illachy Sucy, ditto											2		2	8			6	37		9
97	Kutchey Chittoo, ditto										½		7				2	4	31	3	15
98	Palampous, ditto																		15	9	14
99	Manapaut Cutchey, ditto										½		14	2	8		4		146	6	12
100	Porkally Shillah, ditto											2½		8	12			6	39	4	3
101	Dohattus, ditto										¼		4	2	8		1	5	49		11
102	Caungs, ditto										17	3½	263	2	4	8	7	15	1864	7	15
103	Nankins, ditto											2	2	1	4			10	26	2	12
104	Muscat Lungy, ditto											½		2	8			2	29	3	7
105	Nawor Undah, ditto											2		5	10			4	5	4	8
106	Suffeth Chillah, ditto											2	1	1	4			6	10	1	12
107	Ditto Pugdev, or Turbans																		9		6
108	Ditto Baughthaw, Cloth										½	1½	6	1	13		2	3	6	1	2
109	Chint Pachady, ditto																		4	9	3
110	Cauthey, ditto										3¼		21	1	6		9	9	43	7	2
111	Paundey Mundaragueray, ditto																		29	9	14
112	Sunny, ditto																		10	3	13
113	Safeth Dutty, ditto																		16	9	6
114	Dahuby, ditto											3		8	12			5	34	7	9
115	Kaurruy, ditto																		28		11
116	Zarukanaray Rumaul, ditto										22½		460			14	4	9	24	3	10
117	Shawls																		19	7	11
118	Gurbsooth Loongy, Cloth																		2	7	9
119	Callegey Saddy, ditto										¼	4	10	3	8		4	7	60	4	7
120	Kinkaub, or Athalass, ditto																		1		2
121	Reshmahny Kins, ditto																		9	8	10
122	Humbroo, ditto																			2	6
123	Reshmaney Duptah, ditto																			1	4
124	Chint Razarav, ditto																		1	1	4

4.

ACCOUNT *(Continued)* of SEA CUSTOMS collected in the Year *Rowdry* or *Fusly* 1210 in the *Talook of Mangalore.*

No.	ARTICLES.	IMPORTED.																	EXPORTED.																	Total Customs.		
		Weighing Articles.			Measuring Articles.						Corge, or Score by Number.		Price.			Customs.			Weighing Articles.			Measuring Articles.						Corge, or Score by Number.		Price.			Customs.					
		Candies.	Maunds.	Seers.	Corges of 42 Morays.	Morays.	Hanies.	Extra Articles.	Pieces.	Parcels.			Pagodas.	Fanams.	Anas.	Pagodas.	Fanams.	Anas.	Candies.	Maunds.	Seers.	Corges of 42 Morays.	Morays.	Hanies.	Extra Articles.	Pieces.	Parcels.			Pagodas.	Fanams.	Anas.	Pagodas.	Fanams.	Anas.	Pagodas.	Fanams.	Anas.
125	Rajapudy Nagpudy Sahdy, Cloth										114½	4	1974	6	1	123		6											2½	2	6	4			13	123	1	3
126	Bengally Dattarry Charkana, ditto										18¾	1½	405	4	4	22	9	8										¾	1	17	3	8		5	5	23	4	13
127	Sageth Pathul, ditto										½	1	10	1	14		6																				6	
128	Soothy Kins, ditto										5¼	1¼	76		1	5	4																			5	4	
129	Colihy Pachody, ditto										50½	½	1019		8	58	4	1																		58	4	1
130	Mercoly Pachody, ditto										¾	3	10	1	4		8	8																			8	8
131	Shuttrunjee, Carpets										1¾	2½	14	7	15	1	5	11																		1	5	11
132	Tevasay, Cloth										2¼	4½	57	9	10	3		14																		3		14
133	Cachika Larbotay, ditto										3¼	2	33	6	4	3		1																		3		1
134	Rubi Coddry, ditto										½	4	6	3	12		8	5																			8	5
135	Hynah, or Looking Glasses										8¼	1¼	45	1	7	8	5	10																		8	5	10
136	Gunlaby Sisha, Rose Water Glasses							118					22	5		1	9	2																		1	9	2
137	Chatah Booriahs, or Matts							233000					466			49	2	5																		49	2	5
138	Machely, or Fish							27113					473	4	10	56	4	5							100					6	7	8		2	13	56	7	2
139	Lavekah Saball							21					5	2	8		2	3																			2	3
140	Paper, Reams							195					390			41	4	6							34¼					68	5		3	2	1	44	6	7
141	Camplemess, Fish							23⅛					216	9	12	7	9	1																		7	9	1
142	Coconut							806585					4286	9	8	277	2	7																		277	2	7
143	Chasop Petty, or Box							47					587	5		4	1	2																		4	1	2
144	Wine, or Leaguer of Liquors							48					1120			67	5	10																		67	5	10
145	Jagory, Bundless							19					1	1	14			9																				9
146	Balihah Berah, or large Mats							143					39	7	14	1	8	7																		1	8	7
147	Pawdah							329						5	13	4		12							31					6	5	8		2	3	4	2	15
148	Kutcha Suparee, or raw Betle Nut							247550					61	8	14	7		9							19000					4	7	8		5	5	7	5	14
149	Acroot, or Walnuts							23000					8	6	4		7	5																			7	5
150	Sicka Boja, or Vinegar Boxes							8½					14	8	12		7	6																			7	6
151	Horses							2					20				7	12																			7	12
152	Sulleh Thaunoo							55¼					312	7	8	40	3	5																		40	3	5
153	Banah Tookdah									1			3	5			3	6																			3	6
154	Mungala Ghuree Rumalla, Handkerchiefs										764	3	1068	1	13	138	2	11																		138	2	11
155	Jutti, or Shoes										8¾		23	2		1	6	4								25½							21		7	2	8	14
156	Poth Custy Many Sur										77½		31	1	5	2	1	2																		2	1	2
157	Pithla, or Copper		2	30¾									6	6	4	1	2	9																		1	2	9
158	Fans										13½		6	9			4	6																			4	6
159	Duva, Coconut							60161					189	3	12	13	5	10																		13	5	10
160	Cadjans, or Mats of Cocoanut Leaves							2456					64	1	9	4	3	10																		4	3	10
161	Pithal Caung										½	2	1	5	10			15																				15
162	Lavehka Kuluph										4½	3	12	8	2		8	9																			8	9
163	Cauguth, or Paper Bundles							72½					51	4	4	3	4	15																		3	4	15
164	Ivory										3¼		1	5	10		1	1																			1	1
165	Wood										133¼		53		3	3	5	15																		3	5	15
166	Gomtah							67					3	9	8		2	11																			2	11
167	Small Boxes										16¾	1	5	3	2		3	10																			3	10
168	Kalabuth Topi, or Caps										2½		1	5	10		1	1																			1	1
169	Bajurabut Mauiswar										5			8	11			9																				9
170	Sallah			5										5	4			5																				5
171	Rekabor Pingany										2½		18	3	6	1	2	10										1½	4		3	2			3	1	2	13
172	Pithallka Culuph										3½		3	4	6		2	5																			2	5
173	Uthy, or Iron Box										2			6	4			7																				7
174	Cages							4					1	8	12		1	4																			1	4
175	Savekah										5¼	3	4	4	13		3	3																			3	3
176	Thutty Boriah										327	2	96	9	12	6	5	11																		6	5	11
177	Oinnuck, or Spectacles										45¾	3	34	6	14	2	4	7																		2	4	7
178	Silk Umbrellas										4	3	57		14	3	9	9																		3	9	9
179	Empty Boxes										1½	2	10	9	6		6	14																			6	14
180	Nuchy										1½		10	6	4		6	6																			6	6
181	Pithleyka Tabuck, or Iron Vessels							3					1	8	12		1	4																			1	4
182	Wooden Boxes										42½		3	3	6		2	4																			2	4
183	Cachkady Panmus										¼			7	3			8																				8
184	Laveka Much													3	2			3																				3
185	Bengalli Davath										10		1	2	8			15																				15
186	Pingany Dobey										405	4½	78	1	12	5	3	2										3¼	3	1		7			10	5	3	12
187	Cuthny Topi, or Hat Feathers										24¼	4	43	7	8	2	9	10																		2	9	10
188	Penknives										3½	2	3	9	11		2	14																			2	14
189	Needles							19000					5				3	6																			3	6
190	Safeth Saddy, or Tape										1½		2	1	14		1	7																			1	7
191	Looking Glasses covered with Paper										94¾	2	43	8	9	2	9	13										49½		7	8	2		4	11	3	4	8
192	Dabun, Coarse Needles										12½			6	4			7																				7
193	Ratballoo	3											1	4	13		1																			1		
194	Sunth Thugdoo										53½	1	32	6		2	2																			2	2	
195	Iron Good goody										1¼	1	2	1	1		1	6																			1	6
196	Kungay, or Wood Combs										34		2		15		2	4																			2	4
197	Ditto, Ivory ditto										67¼		38	2	7	2	5	15																		2	5	15
198	Pothmany Lushuddy							25					1	8	12		1	5																			1	5
199	Wooden Shoes							7						5	5			5																				5
200	China Till Tavah										1	2	5	6	4		3	13																			3	13
201	Iron Weights										1¾	2	4	4	11		3																				3	
202	Pizar, or Shoes										¾		2	1	14		1	8																			1	8
203	Chadrung, or Dice							3						9	6			9																				9
204	Bungday or Bracelets										½	4	1		5			11																				11
205	Lackdy Pallah										7	4	1	3	10			14																				14
206	Kagath Shettry, Paper Umbrellas										49¾	1	111	3	8	7	5	12																		7	5	12
207	Goodgoodyke Rully										5			6	4			7																				7
208	Laveeh Galah, or Fish Hooks										100			6	4			7																				7
209	Brass covered Red Looking Glasses										1		3	1	4		2	2																			2	2
210	Puttacky—Cutt							12					1	5	10		1	1																			1	1
211	Duggah Bootawh							1000						3	2			3																				3
212	China Toppy										1		3	1	4		2	2																			2	2
213	Stones for grinding Sandal							24						9	6			10																				10
214	Soorat Pans							3					2	8	2		1	15																			1	15
215	Ditto, Mutty qui Dubby										6		3	7	8		2	8																			2	8
216	Plantains							1540					1	7	12		1	4																			1	4
217	Soomah Gudah							470					1	7	12		1	4																			1	4
218	Goa Buchingahi Tabu							2650					16	5	10	1	1	4																		1	1	4
219	Mooskaty Tokray										9			8	12		1	4																			1	4
220	Goa Bringalls							280						5	4			5																				5
221	Chilhey Denuss												8	1	4		4	14																			4	14
222	Luckdybabuth Cungsy																											80		1	8	12		1	2		1	2
223	Munjal, or Saffron																		59	5	30									414	9	14	27	1	13	27	1	13
224	Uthdruck																		1											9	5			6			6	
225	Macky & Gurry, Bundles																								2¾					9				4	4		4	4
226	Adohdy																								200					25			2	1		2	1	
227	Choodveh																								3					5	2	8		1	13		1	13
228	Gunney Bindeh																								227					20	4	6	1	2		1	2	
229	Withulla				128	21	30						3438	9		184	2	6				3	19							63	5	9	4	2	12	188	5	2
230	Churudahy												2229	9	6	222	9	13												9339	8	7	622	6	9	845	6	6
231	Nimmuck, or Salt				cumba 31	solagie 5¼	solagie 2¼						2619	4	8	115	2	3																		115	2	3
232	Chop, or Marks upon Cloths															7	7	13																		7	7	13
233	Daw Dunkhie, Duties on Anchorage							32								232																				239		
234	Long Boat, ditto							6								12	5																			12	5	
235	Pattamars, Boats, ditto							281								223	7	12																		239	7	12
236	Munjee, ditto							196								114	2	14																		114	2	14
237	Chambauk, ditto							28								11	2	8																		11	2	8
238	Toney, Canoes, ditto							179								58		4																		58		4
239	Small Boats, ditto							1								7	2	8																		7	2	8
240	Sebadoh, ditto							9								9	8	5																		9	8	5
241	Coondry, ditto							24								10	6	14																		10	6	14
242	Munchill, ditto							14								14	5	9																		14	5	9
243	Koolky, ditto							50								21	9	13																		21	9	13
244	Sowdey, ditto							11								5	8	2																		5	8	2
245	Navaddy, ditto							2								2	1	14																		2	1	14
246	Mahigherry, ditto							26								8	7	13																		8	7	13
247	Malcaly Bellah, ditto							8								9	8	14																		9	8	14
	Total												84461	7	13	7328	8	15												172427	2	10	14431	6	15	23760	5	14

JOHN G. RAVENSHAW.

A Statement, showing the quantity of Seed required, and the Produce, both in respect to quantity and value, of two Rice Estates in *Seroor* Village of *Tombretty Maugany*; the grain having been cut down, beaten, and measured, in presence of the Valuators. The materials furnished by Mr. Ravenshaw.

Estates.	Measurement.		Seed. Quantity according to the report of the Cultivators. Reduced to the *Mudy* of 40 *Hanies*.	Reduced to English measures.	Proportion. One *Mudy* sows,	One Acre requires,	Gross Produce. Of rough Rice.		Clean Rice, deducting the expense of beating and cleaning. Quantity.		Value at 12½ *Pagodas* for 40 *Mudies*.		Average increase of rough rice.	Average produce of one Acre. Quantity. Rough rice.	Clean rice, deducting expense of cleaning.	Value of the preceding Column.
	Guntas. Anas.	Acres dec.	Mud Han.	Bush. dec.	Guntas. Anas	Bush. dec.	Mud. Han.	Bush. dec.	Mud. Han.	Bush. dec.	Pag. Rup. Fan.	£ s. d.	Folds.	Bush dec.	Bush. dec.	£ s. d.
Beem Pundary Landlord.																
1 sort *Bylu* land	182 14	4·572	4 20	5·9145	40 0	1·2936	109 0	141·945	46 0	59 928	14 1 2	5 15 11¾	22$\frac{9}{40}$	31·06	13·102	1 13 0
2 ditto *Magelu* land	52 15½	1·324	2 10	2·95725	23 4	2·233	26 4	32·99	11 25½	15·154	3 2 2$\frac{1}{5}$	1 7 7¾	1$\frac{24}{40}$	25 065	11·446	1 8 10
3 ditto *Bettu* or *Mackey* land...	209 6	5 234	6 0	7·8134	37 10	1·4928	23 28	30·086	9 19	12·339	2 3 3$\frac{3}{5}$	1 3 10¼	3$\frac{33}{40}$	5·896	2·357	0 5 11
Total ...	445 3½	11·130	12 30	16·68515	35 0	1·6731	158 32	206·021	67 4½	87 421	20 3 8$\frac{3}{5}$	10 7 5¾	12$\frac{18}{40}$	18 51	7·854	1 0 3
Ante Tolar Landlord.																
1 sort *Bylu* land	97 4	4·931	4 5	5·371625	47 12	1·089	264 0	343·785	108 36	141·813	34 0 0½	13 14 3	64	69 713	22·843	2 17 6¼
2 ditto *Mackey* land	400 10	10·015	7 35	10·2551	50 12	1·024	128 32½	167·746	51 21	67·1	16 0 1½	6 9 9	16$\frac{19}{40}$	16·748	6 699	0 16 10½
Total ...	597 14	14 946	12 0	15·626725	49 12	1·0465	392 32½	511·531	160 17	208·913	50 0 2	20 4 0	32$\frac{29\frac{1}{2}}{40}$	34·225	73 89	1 14 11½
General Total....	1043 1½	26·076	24 30	32·311875	42 0	1·24	551 24½	717·552	227 21½	29 ·334	71 0 1$\frac{3}{5}$	30 11 5¼	22$\frac{1}{40}$	27·5	71·36	1 8 7½

A Statement, showing the Seed required for Rice-ground, and its Produce, in seven Estates of five different Villages in *Tombretty Mangauny* of *Barcuru Taluc*. The materials furnished by Mr. Ravenshaw.

Villages.	Landlords.	Measurement.		Seed, rough rice. Total.		For One Acre.	Produce in Rice, deducting the expense of beating. Gross.		Average. Of One *Mudy* sown	Of One Acre. Quantity.	Value.
		Guntas. Ana	Acres. dec.	Mud. Han.	Bush. dec.	Bush. dec.	Mud. Han.	Bush. dec.	Mud. Han.	Bush. dec.	£ s d
Hegguulu ..	*Muddoo Row* ...	5242 12	131·0727	136 27½	178·	1·3580	967 20	1259·911	7 5	9·612	0 18 7
	SankaraNarayana	19928 10	498·2333	357 22½	465·63	0·9345	3830 20	4988·125	10 30	10 011	0 19 4½
	Munjee Shitty ...	1062 4	26·5564	26 17½	34·4276	1·2964	199 30	260·123	7 22	9·795	0 18 11¼
	Pooteyar... ...	1507 14	37·6727	33 15	43·462	1·153	289 ...	376·35	9 ...	9·983	0 19 4
	Aniss Shitty.. ...	2440 14	61·0243	62 17½	81·308	1·332	456 30	594·8	7 5	9·747	0 18 10
	Shambercy... ...	479 13	11·9955	18 23½	24·1728	2·015	109 ...	141·945	5 35	11·833	0 2 10½
	Timmy Hebba ...	272 13	6·8204	5 32½	7·5691	1·11	56 20	73·576	9 29	10·787	0 0 10¼
	Total.....	30932 ...	773,4	640 25	834·4	1·078	5909	7694·838	9 8	9 955	0 19 2

Measurement and Valuation of two Villages in *Barcuru Taluc*, furnished by *Yessawunt Row*, the Appraiser employed by Government.

Bylu lands.

Village.	Landlord.	Measurement.		Seed, rough rice. Gross.	Per Acre.	Produce in clean Rice after deducting the expense of cleaning. Gross.	Per Acre. Quantity.	Value.
		Guntas. Anas.	Acres. dec.	Mud. Han.	Bush. dec.	Mud. Han.	Bush. dec	£ s. d.
Coligay ...	*Rama Chandra Nayaka*.	513 13	12·846	7 0	0·70963	126 20	12·825	1 4 9½
	Linga Baylala.	608 11	16·679	8 0	0 625	126 20	12·617	1 4 6½
	Siteram Uuru	338 15	8·474	4 25	0·701	76 20	11 709	0 18 1½
	Umpei Chitty...	773 15	19·349	11 5	0·749	186 20	12·552	1 4 3¼
	Krishna Ediala... ...	86 1	2·151	1 20	0 929	21 20	13·012	1 5 2
	Dugupa Bagawata	15 12	0 393	0 10	0·827	4 0	13·229	1 5 7
	Total......	2,397 3	59·98	32 20	0·811	577 20	12 548	1 4 3¼
Himana..	*Rangaia*...	1,027 7	25·687	21 10	1·077	256 0	12 979	1 5 1¼
	Rama Sastri.	... ...	...	... ...	...	... ...	...	....
	Ariaudapa.	123 1	3·077	2 20	1·058	30 20	12·802	1 5 9
	Madua Row...	121 5*	3·022	2 5	0·912	30 0	12·881	1 4 1
	Total......	1,271 13	31·79	25 95	1 06	316 20	12·962	3 5 0¾
	General Total...	3,669 ...	91·728	58 15	0·829	894 0	12·692	1 4 6½

Majelu lands.

Village.	Landlord.	Measurement.		Seed, rough rice. Gross.	Per Acre.	Produce in clean Rice after deducting the expense of cleaning. Gross.	Per Acre. Quantity.	Value.
		Guntas. Ana.	Acres. dec.	Mud. Han.	Bush. dec.	Mud. Han.	Bush. dec.	£ s. d.
Coligay ...	*Rama Chandra Nayaka*.	411 2	10·27	4 5	0·526	69 20	8·805	0 17 0½
	Linga Baylala.	387 9	9·68	8 20	1·142	67 0	9·604	0 17 5
	Siteram Uuru	232 2	5·80	2 10	0 505	41 0	9·158	0 17 8½
	Umpei Chitty	244 6	6·09	3 5	0·839	44 10	9·427	0 18 2¾
	Krishna Ediala	34 6	0·85	0 20	0·757	6 0	9 092	0 17 7
	Dugupa Bagawata	... ...	...	... ...	...	... ...	...	....
	Total......	1309 9	32·66	18 20	0·657	227 30	9·086	0 17 6¾
Himana..	*Rangaia*	342 5	8·56	7 0	1·065	58 0	8·825	0 17 0¾
	Rama Sastri.	... ...	...	... ...	...	... ..	...	....
	Ariaudapa.	... ...	...	... ...	...	... ...	...	....
	Madua Row	... ...	...	... ...	...	... ...	...	....
	Total......	342 5	8·56	7 0	1 065	58 0	8·825	0 17 0¾
	General Total...	1651 1	41·22	25 20	0·804	285 30	9·009	0 17 5

Betta, Vara-betta, and Mackey lands.

Village.	Landlord.	Measurement.		Seed rough rice. Gross.	Per Acre.	Produce in clean Rice after deducting the expense of cleaning. Gross.	Per Acre. Quantity.	Value.
		Guntas. Anas.	Acres. Anas.	Mud. Han.	Bush dec.	Mud. Han.	Bush. dec.	£ s. d.
Coligay ...	*Rama Chandra Nayaka*.	228 12	5·71	4 17½	1 01	15 10	3 472	0 6 8½
	Linga Baylala.	256 1	6 40	3 10	0·832	18 20	3·763	0 6 3½
	Siteram Uuru	124 4	3·1	1 30	0·733	12 10	3·539	0 7 10
	Umpei Chitty	338 0	8·45	4 5	0·635	21 10	3·737	0 7 2¾
	Krishna Ediala	62 9	1·56	1 0	0·832	[illegible] 0	4·162	0 8 0½
	Dugupa Bagawata	... ...	...	... ...	...	..	...	....
	Total......	1009 10	25·2	14 22½	0·753	7 10	3·684	0 7 1½
Himana..	*Rangaia*	643 4	16·1	10 30	0·869	[illegible] 30	3·62	0 7 0
	Rama Sastri.	384 4	9·599	5 0	0·677	[illegible] 0	3·795	0 7 4
	Ariaudapa.	8 13	0·22	0 15	2·214	[illegible] 20	3·955	0 7 8½
	Madua Row	21 13	0·55	0 15	0·895	[illegible] 0	4·776	0 9 2¾
	Total......	1058 12	26 47	16 20	0·811	[illegible] 10	3 689	0 5 2
	General Total...	2068 6	51·7	31 2½	0·782	[illegible] 20	3·795	0 9 1½

Total of Rice lands.

Village.	Landlord.	Measurement.		Seed, rough rice. Gross.	Per Acre.	Produce in clean Rice after deducting the expense of cleaning. Gross.	Per Acre. Quantity.	Value.
		Guntas. Anas.	Acres. d.	Mud. Han.	Bush. dec.	Mud. Han	Bush. dec.	£ s. d.
Coligay ...	*Rama Chandra Nayaka*.	1153 11	28·78	15 22½	0·704	211 10	9·557	0 19 3¾
	Linga Baylala.	1312 5	32·739	19 13	0·769	248 0	9·866	0 19 11
	Siteram Uuru	695 5	17·383	8 25	0·646	125 30	9·42	0 18 2½
	Umpei Chitty	1356 7	33 912	18 15	0·706	255 0	9·792	0 18 11¼
	Krishna Ediala	183 0	4·575	3 0	0 854	32 20	9·25	0 17 10½
	Dugupa Bagawata	15 12	0·393	0 10	0·326	4 0	13·229	1 5 7
	Total......	4710 8	117·91	65 22½	0·724	876 20	9·68	0 18 8½
Himana..	*Rangaia*	2013 10	50·342	39 0	1·007	358 30	9·28	0 17 11¼
	Rama Sastri.	384 4	9·599	6 0	0·677	28 0	3·795	0 7 4
	Ariaudapa.	131 14	3·289	2 35	1·138	31 0	12·272	1 3 8¾
	Madua Row	143 2	3·578	2 20	0·910	32 0	11·647	1 2 6¼
	Total......	2672 14	6·682	49 15	0·962	449 30	8·766	0 16 11½
	General Total...	7389 6	184·74	114 37½	0·81	1326 10	9·48	0 18 1

1801. Jan. 15.

Kaneh Shumareh, or statement of Castes, Men, Boys, Women, and Girls in ten *Talucs* or districts of the Southern Division of the province of *Canara*.

No.	Castes or Trades.	Houses.	Men.	Boys.	Women.	Girls.	Total.
1	*Bráhmans.* Nearly all but that of holding the plough..	6,867	12,677	6,932	13,192	4,080	36,881
2	*Coochastully.* The same ...	320	762	450	799	275	2,286
3	*Kankánies.* Bankers, shop-keepers, and traders	2,434	4,794	2,429	4,495	1,436	13,074
4	*Pennecar,* a 2d sort. Same, but in a lower line	152	242	112	281	82	717
5	*Novaisgar.* Cultivators, and shopkeepers	277	544	269	542	140	1,501
6	*Stanicas.* Employed in low offices at heathen temples ..	880	1,466	744	1,396	450	4,026
7	*Gujjer.* Merchants from *Guj-jerat*...	4	38	...	8	5	51
8	*Hurry Chitties.* Merchants .	161	293	129	291	83	796
9	*Lingabantar.* Merchants usually called *Banijigar*	328	573	205	535	151	1,464
10	*Rajputs.* Messengers, soldiers, and robbers	47	91	38	79	23	231
11	*Satanies.* Adorn the idol *Vishnu*	6	10	3	9	4	26
12	*Daseris.* Religious mendicants	114	181	67	154	74	476
13	*Vairágis.* Ditto	6	11	4	7	5	27
14	*Jainas.* Cultivators	2,700	5,108	2,307	4,763	1,914	14 092
15	*Bunts.* Ditto...	8,183	19,349	7,775	19,041	6,654	52,819
16	*Davadygar* (*Devagaica.* Musicians	1,583	2,893	1,079	2,968	918	7,853
17	*Nairs.* Farmers	788	1,718	748	1,800	620	4,886
18	*Moplays.* Farmers and merchants	3,835	6,383	3,402	6,776	2,582	19,143
19	*Moylar.* Similar to the *Stanica,* No. 6.	160	206	111	318	87	722
20	*Carwar.* Generally seamen ...	28	33	8	36	5	82
21	Mussulmans. Exclusive of *Moplays*, and artists	1,388	2,276	1,200	2,377	832	6,685
22	*Cunians.* Fortune-tellers, exorcists	145	234	118	233	83	668
23	*Chuplygur.* Day labourers (a Mussulman word)	43	72	24	73	20	189
24	*Pomebut.* Attendants on the idols of destructive spirits.	224	414	147	367	124	1,052
25	*Coilaury.* Cultivators, and servants.	523	1,037	410	1,052	417	2,916
26	*Carda Kankánies.* Ditto ..	719	1,385	598	1,336	399	3,718
27	*Kankány Walleygar.* Messengers, &c.	273	511	205	517	125	1,358
28	*Chuptagar.* Carpenters, wood-cutters, &c....	259	406	176	439	126	1,147
29	*Baat.* Persons employed by the great to sing their praises..	8	16	11	17	12	56
30	*Gauda Barla Wocul.* Cultivators.	3,271	6,218	3,587	6,264	2,708	18,777
31	*Biluaras.* People who extract the juice of palms.	11,397	20,222	8,087	19,376	6,079	53,764

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No.	Castes or Trades.	Houses.	Men.	Boys.	Women.	Girls	Total.
32	*Marattahs (Sùdras* of that *Dèsa).* Cultivators	1,943	3,298	1,689	3,152	1,285	9,424
33	*Bedor.* A savage race, who eat cats, and with great propriety are called murderers	16	29	13	23	14	79
34	*Kshatriyas* (pretenders to the 2d. caste). Messengers, robbers, &c.	289	657	295	640	170	1,762
35	*Mogayar.* Fishermen, boatmen	2,410	4,017	1,530	4,166	1,349	11,062
36	*Parsis.* Merchants	1	8	..	...	..	8
37	*Tœlies.* Oil-makers	755	1,266	553	1,283	506	3,608
38	*Garludda Kankànies.* Gardeners, and cultivators	114	193	65	167	40	465
39	Christians. Cultivators, merchants, &c.	2,545	3,701	1,968	3,603	1,605	10,877
40	*Coneqeyer.* Cultivators... ...	63	89	58	97	31	275
41	*Cabbadi.* Sellers of butter and milk.	23	31	12	33	16	92
42	*Currey Cudemdaer.* A low caste of cultivators.	206	437	261	393	182	1,273
43	*Malayala Biluaras. (Tiars)* Toddy-sellers.	128	219	83	219	62	583
44	*Mar, Marattahs.* Cultivators.	41	74	55	69	22	220
45	*Malay-cudis.* Cultivators living on the hills	579	885	404	863	247	2,399
46	*Hola Davaru (Halypecas?).* Cultivators	155	330	150	334	124	938
47	*Bhyru.* Day labourers.. ...	265	402	190	377	175	1,144
48	*Cundlagar.* Farmers	57	106	71	102	38	317
49	*Upar.* Pioneers.	6	9	3	6	..	18
50	*Garwady.* Snake-catchers ..	1	4	2	1	..	7
51	*Govaygar* (natives of *Goa*). Merchants	46	115	77	94	44	330
52	*Autgar.* A sort of actors, who represent the ancient wars of India.	3	7	1	5	2	15
53	*Conchittigar.* Farmers	18	21	18	21	10	70
54	*Comutty (Vaisyas).* Merchants of the 3d pure caste	12	18	6	27	5	56
55	*Pacanat.* Collectors and venders of drugs.	12	17	18	17	8	60
56	*Dumbar.* Tumblers.	5	20	10	25	8	63
57	*Bardsegar.* Labourers, and cultivators	31	46	26	50	38	160
58	*Baylall.* Farmers	18	47	11	52	19	129
59	*Rachewar.* Messengers, soldiers robbers..	5	8	2	8	3	21
60	*Gursor.* A set of people living in forests, on what they can procure wild there	6	6	..	6	2	14
61	*Rarney.* Day labourers ...	14	18	7	14	5	44
62	*Barsagur.* Farmers	24	54	35	56	18	163
63	*Mar Daerd (Whalliaru?).* Day labourers, Messengers, &c..	1,198	1,634	833	1,594	603	4,664
64	*Cundacar.* Land measurers...	5	12	9	10	2	33
65	*Buy.* Palanquin-bearers ...	171	284	134	278	98	794
66	*Mally Buy.* Fishermen ...	7	11	8	10	4	33
67	*Coomaru Marattahs.* Farmers	5	13	3	10	8	34

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No.	Castes or Trades.	Houses.	Men.	Boys.	Women.	Girls.	Total.
68	*Telinga Bulgewars.* Traders, and labourers. *Teliga Banijigaru* of *Karnata*	32	48	30	55	22	155
69	*Cunabi.* Farmers of pure *Sudra* descent..	179	447	200	361	136	1,144
70	*Mocarey* (*Mogayar* No. 35.) Boatmen	135	218	124	247	98	687
71	*Gollors.* Various services ..	173	299	146	291	106	842
72	*Jogies.* Religious mendicants	200	332	160	319	102	913
73	*Bundarcy.* Shopkeepers, servants	112	229	89	213	67	598
74	*Curubaru.* Cattle-drivers, and dealers	49	68	24	70	21	18
75	*Busive* (*Baswa*). Prostitutes of the sect who worship the *Linga*	33	16	14	71	16	117
76	*Jotugur.* Gardeners .. .	75	166	83	148	38	435
77	*Neckar* (*Nuccal*). Jugglers &c	16	21	7	23	4	55
78	*Buda Budiky.* Beggars ..	15	21	25	30	11	87
79	*Lingawer.* Ditto	12	14	7	13	10	44
80	*Telingas.* Merchants from *Telingana*	19	34	30	35	15	114
81	*Polut.* Cultivators	48	83	37	92	25	237
82	*Savunts.* Ditto	2	4	2	3	1	10
83	*Carady.* Various services ..	18	33	10	34	9	36
84	*Mooshgey.* Farmers .. .	6	8	3	7	8	26
85	*Ambigor.* Boatmen	12	22	16	22	6	66
86	*Duckey.* Beggars, worshippers of *Buddha*	11	15	5	17	5	42
87	*Seddar.* Ditto	36	66	17	66	14	163
88	*Veor.* Ditto	14	23	9	24	13	69
89	*Mistries.* Head carpenters ..	14	26	13	23	4	66
90	*Chowdeky.* Beggars	1	1	2	2	..	5
91	*Ruddi.* Farmers	7	14	2	13	..	29
92	*Mallewar.* Farmers, who wear the *Lingam*..	689	1,376	623	1,257	472	3,728
93	*Puroo.* Merchants' servants	16	28	13	23	9	73
94	*Cunnurungal.* Day labourers	1	4	3	4	3	14
95	*Sapucoragur (Corar)* Ditto	158	267	118	258	106	749
96	*Dererd (Whalliaru).* Slaves employed in cultivation ..	12,278	16,751	7,528	16,633	6,446	47,358
97	*Dobe.* Washerman	517	912	352	855	284	2,403
98	*Hujam.* Barbers	517	912	352	855	284	2,403
99	*Chummar.* Workers in leather	193	386	187	378	149	1,100
100	*Sungtrash.* Stone-cutters ...	27	48	16	42	16	122
101	*Sunar.* Gold and silver smiths	1,329	2,714	1,194	2,640	1,017	7,565
102	*Cassar.* Workers in brass ..	127	234	95	223	73	625
103	*Lohar.* Blacksmiths	127	210	101	201	95	607
104	*Julai.* Weavers	847	1,367	707	1,335	543	3,952
105	*Canara Khumbhara.* Potmakers...	2,188	3,892	1,570	3,646	1,350	10,458
106	*Buddai.* Carpenters .. .	602	986	529	1,027	382	2,924
107	*Rungary.* Dyers	1	4	...	2	..	6
108	*Borudir.* Mat-makers	65	111	55	106	39	311
109	*Tambutgars.* Coppersmiths ..	5	13	9	12	5	39
110	*Chitrigar.* Painters.	5	9	5	9	4	27
111	*Pinjar.* Cotton-cleaners .	16	27	12	28	4	71
112	*Shiculdars.* Cutlers	10	26	6	23	7	62

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No.	Castes or Trades.	Houses.	Men.	Boys.	Women.	Girls.	Total.
113	*Zecndar.* Saddlers.	32	62	26	62	25	175
114	*Dirzi.* Tailors.	125	252	119	245	87	703
115	*Toipha.* Dancers and musicians	156	140	96	345	142	723
116	*Jetty.* Wrestlers	2	5	3	4	1	13
117	*Killabund.* Architects, literally constructors of forts ...	4	3	..	7	4	14
118	*Tapegar.* Jewellers	1	2	2	2	1	7
119	*Jilligar.* People who search wells, and *tanks* for lost money	5	7	5	4	2	18
120	*Moothaley.*	26	35	21	27	24	107
121	*Adagathur Mogayar.* Boatmen and fishermen	31	51	18	61	14	144
122	*Corchey.* Day labourers ...	3	11	4	7	11	33
	Grand Total..	79,856	141,681	64,952	1,40,302	49,737	3,96,672

The general result is, that in the southern division of *Canara* there are 79,856 houses, inhabited by 396,672 persons; of whom

Males, Men ...	141,681	
Boys ...	64,952	
		206,633
Females, Women	140,302	
Girls ...	49,737	
		190,039

Polygamy not owing to an excess of females.

This excess of males above the female population, which also has been found to prevail in the *Bara-mahal,* and other parts of the peninsula where an accurate census has been taken, entirely overthrows the doctrine upon which some ingenious reasoners have attempted to account for the prevalence of polygamy in warm climates.

Jan. 16. State of the country.

16th *January,* 1801.—I went about two miles, said to be two cosses and a half, to a place called *Urigara,* or the *bank.* Immediately beyond *Cavai* I was ferried over a very wide inlet of the sea, which separates the province of *Malabar* from that of *Canara;* but the country called *Malayala* by the natives extends a considerable way farther north. My road all the way led along a narrow bank of sand, between the sea and the inlet. The surf, although larger than any that I have seen on this coast, is by no means so violent as at Madras; and small fishing canoes go through it with ease. At *Urigara* the sand bank increases in width, and admits of some rice fields, and plantations of coco-nut trees. There is here no village; but there are a few huts inhabited by *Moplays,* who now possess the sea-coast of this part of *Malayala,* as the *Nairs* do the interior. On the side of the inlet, opposite from *Urigara,* is *Niléswara,* now a *Moplay* village, but formerly the residence of a *Rájá,* who derived his title from the place, which is called after one of the names of the god *Siva.* Although the *Nairs* are still more numerous

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than the *Moplays*, yet during *Tippoo's* authority, while not protected by government, the *Hindus* were forced to skulk in the woods, and all such as could be caught were circumcised. It must be observed, that however involuntary this conversion may be, it is perfectly effectual, and the convert immediately becomes a good Mussulman, as otherwise he would have no caste at all; and, although the doctrine of caste be no part of the faith of Muhammed, it has in India been fully adopted by the low ranks of Mussulmans. On entering *Canara*, an immediate change in the police takes place. No person is here permitted to swagger about with arms; these may be kept in the house for protection against thieves; but they must not be brought into public, for the encouragement of assassination.

Jan. 17. Appearance of the country.

17th *January*.—I went about ten miles to *Hosso-durga*, or *Pungalcotay*; both of which signify the new fort, the former in the dialect of *Karnata*, and the latter in the *Malayala* language. The country near the sea, most of the way that I came to-day, is low and sandy; but much of it is rice-land, intermixed with which is much sandy land, too poor, the natives say, to produce coco-nut palms. The whole appears to be much neglected, owing to a want of inhabitants.

Towards *Hosso-durga*, the dry-field rises into gentle swells; yet it is too hard and dry for plantations. It is now waste; but, when there were plenty of people, it was cultivated for *Ragy* (*Cynosurus corocanus*), *Horse-gram* (*Dolichos biflorus*), *Sesamum*, and different pulses. The hill-rice is here unknown; the soil, however, is exactly the same as that which is used to the southward for this grain.

Hosso-durga;

The fort is large, and well built of the *Laterite* common all over *Malayala*. The bastions being round, it is more capable of defence than the native forts in general, in which the defences are usually square. It occupies a fine rising ground, looks well at a distance, and commands a noble prospect. The only inhabitants are a few *Puttar Bráhmans*, who serve a temple, and whose ancestors were placed there by the *Ikeri Raja*, who built the fort.

History of the *Nileswara Rajas*.

According to the report of the *Nairs* here, all this part of the country originally belonged to *Colatanada*; but from the river of *Cavai* to that near *Beäcul* had been long alienated, from the house of *Colastri*, to the *Nileswara Raja*, a chief of the *Tamuri* family. In the year 905 (*A.D.* $17\frac{29}{30}$), *Rama Varma Raja* of *Nileswara* was invaded by the *Ikeri Raja*, who in the following year built the fort. After a struggle of twelve years, the *Nair* prince was compelled to become tributary. His country was divided into three *Nadas*, or districts, for each of which he agreed to pay annually 530 *Ikeri Pagodas*, or 213*l.* 12*s.* 3*d.* On paying this sum the *Rajas* were allowed to retain the entire management of their country, and seem at least so early to have established a regular land-tax in lieu of their claims on the moveable property of all persons dying in their territory. These claims they entirely relinquished, and took one half of the landlord's (*Jenmcar's*) profit on rice lands, and one-fifth

1801. Jan. 17. of his profit on gardens. On the destruction of the *Ikeri* family, *Hyder* took possession of this country, and increased the tribute to 1500 *Pagodas* for each district; but allowed the *Raja*, as collector, an establishment of 650 *Pagodas* a year; so that, in fact, each district paid $1283\frac{1}{3}$ *Pagodas*, or 517*l*. 2*s*. $4\frac{1}{4}$*d*. Some time afterwards, some landlords (*Jenmcars*) having made complaints of violent oppression against the *Raja*, he resisted the people sent by *Hyder* to investigate the matter, and a war ensued, which ended in the *Raja's* being forced to an exile in *Travancore*. *Hyder* then took the country under his own management, and increased the rate of the land-tax; but, as usual, he made this more palatable by granting considerable allowances to the temples and *Bráhmans*. As soon as *Tippoo* obtained authority in the country, these were stopped; but since the province was conquered by the Company, a part of the allowances have been given to the priests (*Pujaris*) who officiate in the temples. When General Mathews took *Bangalore*, the *Raja* came back from *Travancore*, and seized on the country. After the *Sultan* had triumphantly made the peace of *Mangalore*, he was opposed with such success by this petty *Raja*, that he was forced to consent that the *Raja* should manage the country, and pay only the same tribute which had been exacted by *Hyder*. In the year 961 (A. D. $178\frac{5}{6}$), the *Raja*, having been lulled into security, was inveigled, by repeated promises of safety and friendship, to visit *Budr'uz Zamankhan*, governor of *Beacul*, who hanged him instantly, and, having marched all his forces into the country, before any measure could be taken to resist him, reduced the whole to the obedience of his master. The younger brother of *Rama Varma* made his escape to *Travancore*, and remained there until Lord Cornwallis invaded *Seringapatam*. He then came to *Tellichery*, from whence he received supplies of arms. In the year 966 (A. D. $179\frac{0}{1}$), he returned with these to *Nileswara*, raised an insurrection, and compelled the *Sultan* to allow him the management of the country, on condition of paying the former tribute. After the fall of *Seringapatam*, when Major Monro arrived to take charge of *Canara* as collector, the *Raja* was sick, but sent his sister's son, or heir, to wait on that gentleman; who very prudently told the *Raja* that his case would be laid before the government for their decision. In the mean while, the country was put entirely under the management of *Tahsildars*, exactly on the plan introduced by Colonel Read, under whom Major Monro had been instructed in civil affairs. The *Raja* has thus been deprived of all power; and the favourable time was chosen, when the terror inspired by the fall of *Seringapatam* rendered this easy to be done. The *Raja* has been allowed, for his support, a remission of the land-tax on all his *Cherical* lands, or private estate. The *Nairs*, however, complain of a want of good faith in the British officers. They allege, that General Hartley, on his return from *Seringapatam*, promised the *Raja* that he should be continued in the management of the country.

The dominions of the *Nileswara Raja* extended from the sea to the *Ghats*; and, according to the report of the same *Nairs*, are exceedingly depopulated by war, and by a famine that ensued while they were forced to retire into the woods to avoid circumcision. The inner parts of the country are much overgrown with woods, and are very thinly inhabited. Like the other parts of *Malayala*, they consist of alternate low hills and narrow vallies. In cultivation, more slaves than free men are employed. 1801. Jan. 17.

18th *January*.—I went an easy stage to *Beacul*. From *Pungalcotay*, to a river bounding the country of the *Nileswara Raja* to the north, the road leads along a ridge, sloping very gently towards the sea and rather steeper towards a narrow valley now covered with the second crop of rice. Beyond this are low hills. The soil of the ridge is extremely sandy, and the country is very bare. The river is not wide, and has at its mouth some low land well planted with coco-nut trees. Jan. 18. Appearance of the country.

Between the river and *Beacul* the low hills come close down to the sea side, and are very little intermixed with rice land. In the whole way I crossed only one narrow field. The hills, however, are not steep, and seem all to be capable of being laboured by the plough; but no traces of cultivation are visible.

Beacul is a strong native fort, placed, like *Cananore*, on a high point projecting into the sea towards the south, and having within it a bay. The town stands north from the fort, and contains forty or fifty houses scattered about in great confusion. The inhabitants are chiefly *Moplays* and *Mucuas*, with a few *Tiars*, and people of *Kankana*, who have been long settled in *Canara* as shop-keepers. The country extending between the river south from *Beacul*, and that near *Chandra-giri*, was divided into two districts (*Nadas*), which continued subject to the *Cherical Rajas*, as representatives of the house of *Colastri*, until the invasion by the *Ikeri Rája*. Beggars begin to swarm here, as is the case almost every where in India in which I have been, except *Malabar*, where I scarcely met with one. Beacul.

The *Tahsildar* (collector) says, that in the part of *Malayala* which is contained in *Canara*, the rice-lands near the sea produce annually only one crop, and yield from 5 to 10 seeds, or from 12½ to 25 bushels an acre. In the vallies of the inland country the produce is greater; the land that produces one crop only gives from 12 to 15 seeds, or from 24 to 37½ bushels an acre; that which gives two crops produces the same quantity in the first, and from 8 to 10 seeds in the second, or from 20 to 25 bushels an acre. More grain is raised in the country than the small number of inhabitants can consume. The people are accused by the *Tahsildar* of excessive indolence, and of drunkenness; vices which he attributes to the constant troubles that prevailed during the government of the *Sultan*. Produce of the rice-ground.

Trimula Row, the *Tahsildar*, says, that the nominal value of this part of *Malayala* which is contained in *Canara*, according to the revenue accompts of *Tippoo's* officers, was 8000 *Bohadary Varahas*, Revenue.

1801. Jan. 18.

or 32,000 *Rupees*. Although Major Monro did not make any formal remission of this rent, he only levied 6000 *Pagodas*, or 24,000 *Rupees*, and did not keep the remainder as a balance against the cultivators, which would have depressed their spirits. He took from each man what in his present circumstances he could afford to pay, and did not, for the sake of a nominal revenue on paper, prevent all exertion in the cultivator, by holding over his head the terror of a balance which he could never hope to clear. The rice ground now is not taxed by any share of the *Varum*, or neat rent; but each field pays so much, according to its supposed value; and this tax is alleged to consume the whole rent. Very few of the landlords (*Jenmcars*) remain, and even the mortgagees (*Canumcars*) are willing to give up all the land, which they cannot cultivate with their own stock, to any one who will pay the land-tax. The gardens here pay not only a tax on the tree, as in *Malabar*, but also a tax on the extent of ground which they occupy; yet by *Trimula Row* they are reckoned by far the most profitable heritage for the cultivators. He thinks that the taxes on the cultivator are heavier here than those in *Arcot*. I must observe, that with all these complaints there is little of the rice-land waste; while there is no tax on the cultivation of dry grains, and very little of them if sown.

Nileswara Rajas.

TrimulaRow says, that *Poduga* and *Cavai*, the two districts formerly belonging to *Cherical*, had been entirely subdued; but that the *Nileswara Rajas* had constantly disputed the authority of *Tippoo*. They frequently were able to retain the management, on condition of paying tribute, and then again were frequently driven into exile. The *Raja* asked nothing more, from Major Monro, than a remission of the taxes on the *Cherical* lands, which was last year granted; but it is uncertain whether or not this favour will be continued.

Jan. 19. Appearance of the country.

19th *January*.—I went to a temple dedicated to *Iswara*, at a place called *Pulla*. The first part of my journey was over a sandy spit, separating a salt water lake from the sea. Beyond this, the country rises into open rising lands, all the way to *Chandra-giri* river, which is the northern boundary of *Malayala*. This rising land is in very few places too steep for the plough, and these places are in general rocky. The whole of this land is totally waste, and looks very ill, being covered with long withered grass. There are traces of its having been formerly cultivated; and, no doubt, with manure it would be productive of dry grains. For the cultivation of rice, tanks or reservoirs might easily be constructed; but, with the present paucity of inhabitants, it would be madness to cultivate any thing, except the richest spots. Intermixed with this rising land are a few plots of rice-ground, surrounded by palm gardens and the houses of the *Nairs*; but the proportion of this rich land does not seem to be above a hundredth part of the country.

Chandra-giri.

Chandra-giri is a large square fort, situated high above the river on its southern bank. It was built, like the other forts before-

mentioned, by *Sivuppa Nayaka*, the first prince of the house of *Ikeri* that established his authority in this part of *Canara*. 1801. Jan. 19.

At low water the river is shallow, but very wide. The country on its north side is by the *Hindus* called *Tulava*, and resembles that through which I passed on the south side of the river. I left to my right another fort named *Casselgodu*, which also was built by *Sivuppa*, when he subjected the petty *Rajas* of *Tulava*. *Pulla*, where I stopped, is on the banks of a salt water lake communicating both with the sea and with the *Chandra-giri* river. South boundary of *Tulava*.

20th *January*.—I went about ten miles to *Kanya-pura*, and about half way crossed a river of considerable width; yet at low water it is shallow. The country through which I passed resembles much the part of *Tulava* that I saw yesterday, but the plantations of coco-nuts were rather more numerous. The rice grounds are more neatly cultivated than those in *Malayala*, and the water for the second crop is conducted to them with great care. In many places, where the ground is too high to give a second crop of rice, a crop of *Ricinus*, or of sweet potatoes (*Convolvulus*), is taken. Near the sea, sugar-cane is cultivated. Many traces of former gardens are to be seen from the road, which shows that this kind of cultivation may be greatly extended. Jan. 20. Face of the country.

Kanya-pura is seated on the south bank of a river which surrounds the fort and town of *Cumly*. This is situated on a high peninsula in a salt water lake, which is separated from the sea by a spit of sand. Two rivers fall into this kind of lake, and contain between them the peninsula on which *Cumly* stands. By far the greater part of the coast is occupied by a chain of salt water lakes; but the necks of land interposed render them of little use for an inland navigation. *Kanya-pura* contains about 200 houses, and *Cumly* about 150. The inhabitants are chiefly *Moplays*, *Mucvas*, *Mogayers*, and *Kankanies*. The interior parts are chiefly occupied by the *Brahmans* of *Tulava*, and the *Bunts*, or *Buntar*. *Kanya-purá*, and *Cumly*.

The *Tulava Brahmans* resemble the *Namburis*, and consider themselves as the proper lords of the country. *Brahmans* of *Tulava*.

The *Buntar* are the highest rank of *Súdras* in *Tulava*, and resemble the *Nairs* of *Malayala*. Having assembled some reputable persons of this caste, they gave me the following account of their customs. They are of three kinds: *Massadi Bunts*, or *Buntar* properly so called; *Jain*; and *Parivarada Buntar*. The *Massadi Bunts* are those whom I here examined. They can eat and drink with the *Nairs*; but the two castes have no sexual intercourse. They do not pretend to be by birth soldiers; their proper duty is the cultivation of the land. They can keep accompts, but are not admitted to any higher kind of learning. They have head-men, called *Mocustas*, one for every district. The office is hereditary in the males by the female line; the same mode of succession prevailing here, as in *Malayala*. At present, this office merely confers dignity; the officers of government having assumed all the jurisdiction that formerly belonged *Massadi Bunts*.

1801. Jan. 20. to the *Mocustas*, who settled disputes not only relative to castes, but also concerning property.* In general, all the brothers and unmarried sisters of a family live together in the same house. All the property belonging to the family is considered as common, and is managed, for the good of the whole, by the oldest male. A man's own children are not his heirs. During his life-time he may give them money; but all of which he dies possessed goes to his sisters, and to their children. If a man has a mother's-brother's-daughter, he must marry her; but he may take two or three wives beside. The ceremony is performed by the girl's father, or other near kinsman. When a man marries several wives, none of them can leave him without his consent; but when discord runs high, he in general sends one of the disputants back to her brother's house; and then she is at liberty to marry again. A man at any time, if he dislikes his wife, may send her back to her brother's house; and he can do no more if she has committed adultery. In all these cases, or when a widow returns to her brother's house on her husband's death, she is accompanied by her children, and may marry again, unless she has committed adultery with a person of low caste; but if that crime has been committed with a *Brahman, Kshatri, Vaisya,* or *Bunt*, she is well received, her children become her brother's heirs, and no man will have any objection to marry her. The *Buntar* are permitted to eat animal food, and to drink spirituous liquors. They burn the dead. They seem to be entirely ignorant of a state of future existence; only they believe, that such men as die accidental deaths become *Pysachi*, or evil spirits, and are exceedingly troublesome, by making extraordinary noises in families, and occasioning fits, and other diseases, especially in women. To expel these, the *Buntar* apply to the *Nucaru*, who are a class similar to the *Cunian* of *Malayala*, and who pretend by means of incantations (*Mantrams*) to have a power over the spirits. For the same purpose, sacrifices are offered to various *Saktis*, which differ in almost every different village. Those worshipped here are *Dumawutty*, *Iberabuta*, or the twin devils, and *Birnala*. Besides the sacrifices offered to these idols, to free the people from the attacks of the *Pysachi*, *Iberabuta* and *Birnala* must be appeased by an annual, and *Dumawutty* by a monthly sacrifice. If these are omitted, the enraged devils kill both man and beast. *Siva*, however, is the proper deity of the caste; yet the *Buntar* pray also to *Vishnu*. They call the *Tulava Brahmans* their *Purŏhitas*; but on no occasion do these read *Mantrams* for their followers. All that they can do is to receive *Dharma*, or charity, and to bestow consecrated ashes and holy water.

Cumly Raja. All this south part of *Tulava* formerly belonged to the *Cumly Raja*, who pretends to be a *Kshatri* from the north of India. The manners of his family are the same with those of the *Rajas* of *Malayala*. All the males keep *Nair* girls; but their children, who are called *Tambans*, have no right to the succession. The eldest daughter in the female line cohabits with a *Tulava Brahman*; her sons become

Rajas, and her eldest daughter continues the line of the family. 1801
Whenever she pleases, she changes her *Brahman*. The younger Jan. 20.
daughters also cohabit with *Brahmans*, and produce a race of people called *Bayllal*, who have no right to the succession. The dominions of this family extended from the *Chandra-giri* river to that on the north side of *Cumly*, and produced an annual revenue of 15,000 *Ikeri Pagodas*, or 6,044*l*. 3*s*. 4*d*. The *Raja* lives now in the country; but he has neither lands nor authority. Before the last war he lived at *Tellichery*, on a pension from the Company; which has been doubled since we got possession of the country of his ancestors.

Invasion by the *Coorg Raja*.

The interior parts are said to be naturally very fertile in rice, but they suffered much in the last war. The *Coorg Raja*, during the siege of *Seringapatam*, under pretence of assisting the English, made an incursion into the country, and swept away all the inhabitants that he could seize. He has given them possessions in his own country; but they are very desirous of returning home, although I do not hear that he uses them ill.

State of the natives in *Tulava*.

The people of *Tulava*, although longer subjected to a foreign yoke than those of *Malâbar*, never have been so entirely subdued as the greater part of the *Hindus*, and have always been able successfully to resist the pretensions of their governors to be proprietors of the soil. Their native chiefs have, indeed, been in general able to retain more or less of the management of the country; and on the fall of *Seringapatam*, I am here informed, were very much disposed to try how far they could assert their independence. Two months are said to have elapsed, after the arrival of Major Monro in the country, before that gentleman could induce the people to meet him for the purpose of settling the revenue; but the decisive measures adopted to punish all those who presumed to disturb the peace, an assumed severity of manner to prevent the hopes of success from cajolery, and a strict forbearance from making promises or concessions for the sake of a temporary submission, have saved *Canara* from anarchy, and destructive, though petty warfare.

Jan. 21.
Appearance of the country.

21st *January*.—I was ferried over the lake to the peninsula on which *Cumly* stands, and which was formerly joined to *Kanya-pura* by a bridge. The situation of the fort is very fine, and the town has formerly been pretty considerable. The two rivers leave a narrow isthmus of rice-fields. At present, both the rivers and the lake are salt; but in the rainy season they are quite fresh, and at that time, when no boats can venture to sea, might afford a fine supply of fish: this, however, is an article of food which, except by persons of very low caste, is seldom used. Having crossed the north branch, I went along the sea-beach, having on my right high sandy downs, which prevented me from seeing the country, until I arrived at the banks of a wide but fordable river. On the north side of this is a large straggling town called *Manjeswara*. It contains many good houses, chiefly inhabited by *Moplays*, *Buntar*, and *Biluars*. Having

1801. Jan. 21. crossed the plain on which *Manjeswara* stands, and forded a small river, I took up my quarters at a town named *Hosso-betta,* or the *new-strength,* which is situated on a steep bank that overhangs the last mentioned river.

Byrasu Wodears, a *Jain* family. Immediately after crossing the northern branch of the *Cumly* river, you enter a country that formerly belonged to a *Jain* family called *Byrasu Wodear,* which resided at *Carculla.* The *Jain* here say, that this family were overthrown by *Sivuppa Náyaka* of *Ikeri,* who divided the country into small districts, each producing an annual revenue of from one to three thousand *Pagodas.* Over each of these was placed a petty *Raja* of the *Jain* religion. Ever since, the country has been constantly on the decline, having been continually in a state of insurrection or confusion.

Petty *Rajas* of *Tulava.*

Bungar Raja. The dominions of the first of these *Jain* chiefs that I entered were those of the *Bungar Raja.* *Tippoo* hanged the last person who possessed this dignity; and his children cultivate some land at *Nandavara,* a village in the territory of the family.

Raja of *Vitly.* *Hosso-betta* is also frequently called *Vitly Manjeswara,* from its having belonged to another *Jain* chief named *Hegady Raja* of *Vitly.* By the intervention of other districts, it is however entirely separated from the other territory which belonged to the *Vitly Rajas,* the last of whom was hanged here about three months ago. Before the war, he had lived at *Tellichery,* and received from the Company a monthly pension of 200 *Rupees.* When the army of General Harris approached *Seringapatam,* the *Raja* came here, and, having collected a rabble, plundered the country with great success, and then returned to *Tellichery.* After *Canara* became subject to the Company, the people, who had been thus wantonly plundered, applied for redress, and *Hegady* was required to restore their property. This he refused, and, having procured 800 muskets, it is said from *Mousa,* he returned to *Vitly,* dressed up some ruffians like *Sepoys,* and assumed the authority of a sovereign prince. For almost a year he was able to skulk about the woods, and support himself by plunder; but having been then taken, he was immediately hanged, ever since which the country has been perfectly quiet.

Kankanies expelled from *Goa.* The principal inhabitants of *Hosso-betta,* and indeed of many of the towns in *Tulava,* are *Kankanies,* or people descended from natives of *Kankana.* They say, that they fled hither, to avoid a persecution at *Goray* (*Goa*), their native country. An order arrived from the king of Portugal to convert all the natives. The viceroy, when this order arrived, was, they say, a very lenient good man, and permitted all the natives who chose to retire to carry their effects with them, and allowed them fifteen days to arrange their affairs. Accordingly, all the rich people, *Brahmans* and *Súdras,* retired to *Tulava,* with such of their property as they could in that time realise, and they now chiefly subsist by trade. Both *Brahmans* and *Súdras* are called by the national appellation of *Kunkanies,* and the other *Brahmans* will have communion with these exiles. They are,

however, in flourishing circumstances; and I saw some of their marriage processions passing to-day, attended by a number of exceedingly well dressed people, and very handsome girls. The poor *Kankanies* who remained behind at *Goa* were, of course, all converted to what was called Christianity. 1801. Jan. 21.

22d *January*.—I went a short stage to *Ulala*, a large town on the south side of the lake of *Mangalore*, and formerly the residence of a petty prince. I first passed through *Harawurry Manjeswara*, which is immediately north from the *Manjeswara* that belonged to the *Vitly Rájá*; but it is situated in the district surrounding *Mangalore*, which was not divided among the petty *Rájás*, but was immediately under the government of the lieutenant of the *Ikeri Raja* who commanded at *Mangalore*. Jan. 22. *Ulala.* *Harawurry Manjeswara.*

I afterwards crossed over the lake to the town, where I remained until the 29th. The lake is a fine body of salt water, separated from the sea by a beach of sand. In this, formerly, there was one opening; the depth of water in which was such, that ships of a considerable burthen, after their cargo had been removed, could enter the lake. Last year a new opening formed in the beach, which has proved very injurious to the harbour. The depth of the old opening has diminished, and that of the new one has never become great; so that now, even at high water, and in easy weather, vessels drawing more than ten feet cannot enter. Harbour of *Mangalore.*

For a native place of strength, the fort of *Mangalore* was well constructed; but was destroyed by *Tippoo*, after he had found how little his fortresses were calculated to resist European soldiers, and with what difficulty he could retake any of them, that were garrisoned by a few British troops. The town, called also *Codeal Bundar*, is large, and is built round the sides of the peninsula, in the elevated centre of which the fort was placed. The lake, by which the peninsula is formed, is a most beautiful piece of salt water. The boats that ply on it are execrable; and the fishermen by whom they are managed are a very indolent drunken race. *Mangalore.*

These fishermen are called *Mogayer*, and are a caste of *Tulava* origin. They resemble the *Mucuas* of *Malayala*, but the one caste will have no communion with the other. The *Mogayer* are boatmen, fishermen, porters, and palanquin bearers. All of this caste can eat and intermarry together. They pretend to be *Sudras* of a pure descent, which is rather doubtful; and assume a superiority over the *Halepecas*, one of the most common castes of cultivators in *Tulava*; but they acknowledge themselves greatly inferior to the *Bunts*. They have head-men called *Gurucaras*, whose office is hereditary in the males by the female line. With the assistance of a council, the head-man settles disputes, and punishes all transgressions against the rules of caste. The only fault that is punishable with excommunication is when a woman commits fornication with a person of a lower caste; but for adultery with either a man of the caste, or of one that is higher, a woman is seldom turned away by Customs of the *Mogayer*.

1801. *Jan. 22.* her husband; and even if she be, she is by no means disgraced, but returns to her brother's house, and may be married again whenever she finds a new lover. The men may take several wives, and the whole ceremony of marriage consists in giving the girl some ornaments. After accepting these, she must live in his house, nor can she leave it without her husband's consent; but, whenever he pleases, he may send her back to her brother. The children always follow the mother, and are the heirs to her brothers, and not to their father. If a man's sister be living in the house, she has the entire management of it, and his wives have no authority. The *Mogayer* are permitted to eat animal food, and to drink intoxicating liquors. Some few of them can read, and write accompts. Those of them who are rich burn, those who are poor bury their dead. The spirits of good men go to *Moesha*, which, according to the *Brahmans*, is the heaven where *Vishnu* resides; but the *Mogayer* know of no other. After death, bad men are supposed to be taken by *Emma Dharma Raja*, the judge of the infernal regions. Some of the *Mogayers* pray to *Vishnu*, and some to *Siva*; but the proper deity of the caste is a goddess named *Restali Mahastumma*, who is represented by an image in the form of a woman. The priest (*Pujari*) is a *Biluar*, whose office is hereditary in the males of the female line. The women of this family live with laymen, and the daughters of these are kept by the priest. This is the only kind of priest that these people have. The *Brahmans* indeed accept *Dharma* (duty) from them; but they do not attend at any of their ceremonies, to read *Mantrams*. The goddess has other worshippers, *Buntar*, and oil-makers. She never occasions any trouble to her votaries, if they pray and offer sacrifices; but, if these are neglected, she inflicts sickness on the impious persons. Men who have incurred her displeasure, and who in consequence have become sick, make a vow to suspend themselves by hooks passed through the skin of their backs, and thus to be swung round before her temple. This expiation is performed at the *Jatram*, or great annual feast, when many bloody sacrifices are offered. Women who suppose that the goddess has inflicted on them barrenness, or other great infirmity, vow to walk barefooted on red-hot coals before the temple. If the goddess hears their prayers, she prevents the coals from burning their feet. My informants impudently assert, that the ceremony is frequently performed. A quantity of red-hot coals are spread before the temple; and the woman, after having fasted a whole day, walks three times slowly with bare feet over the fire. The *Mogayers* suppose themselves liable to various diseases from the influence of evil spirits, called *Iacny*, and *Teiteno*, which resemble those called *Paisachi*. These are not to be expelled by sacrifices; but the *Mogayer* apply to some *Biluaras*, and Mussulmans, who possess invocations (*Mantrams*) fit for the purpose.

Christians of *Kankana* settled in *Tulava*. The princes of the house of *Ikeri* had given great encouragement to the Christians, and had induced 80,000 of them to settle in

Tulava. They are all of *Kankana* descent, and retained the language, 1801.
dress, and manners of the people of that country. The clergy, it Jan. 22.
is true, adopted the dress of the order to which they belonged; but they are all natives descended from *Kankana* families, and were purposely educated in a seminary at *Goa*, where they were instructed in the Portuguese and Latin languages, and in the doctrines of the Church of Rome. In *Tulava* they had 27 churches, each provided with a vicar, and the whole under the control of a vicar-general, subject to the authority of the archbishop of *Goa*. *Tippoo* threw the priests into dungeons, forcibly converted to *Islamism* the laity, and destroyed all the churches. As the Christian religion does not prevent the readmission into the church of such delinquents, these involuntary Mussulmans have in general reconciled themselves with the clergy, who now of course are at liberty, and 15,000 have already returned to *Mangalore* and its vicinity; 10,000 made their escape to *Malabar*, from whence they are returning home as quickly as their poverty will admit. The clergy are now busy with their flocks, whose poverty, however, has hitherto prevented them from rebuilding any of their churches. During the government of *Hyder*, these Christians were possessed of considerable estates in land, all of which were confiscated by *Tippoo*, and immediately bestowed on persons of other castes, from whom it would be difficult to resume them. These poor people have none of the vices usually attributed to the native Portuguese; and their superior industry is more readily acknowledged by the neighbouring *Hindus*, than avowed by themselves. The vicar-general was long confined in *Jamal-abad*. He speaks Latin neither correctly nor with fluency, and seems very desirous of obtaining what he calls a domineering power over the sect, that his authority may be equal to that of the native *Gurus*; so as to keep his flock in good order, not only by the spiritual means of excommunication, but also by the temporal expedients of fine and corporal punishment.

The coins in common currency here are,

Gold.

The *Ikeri Varaha*, or *Pagoda* struck by the princes of *Ikeri*, exchanges for ... ... *Rupees* (Coin.)	4
The *Bahadury Varaha*, or *Pagoda* struck by *Hyder*... ...	4
The *Sultany* ditto, *Pagoda* coined by *Tippoo*...	4
The *Krishna Raja* ditto, *Pagoda* coined by the present *Mysore Raja*.	4
The *Puli Varaha*, or Star *Pagoda* of *Madras*...	3½
The *Feringy Petta Varaha*, or *Porto-Novo Pagoda*	3
The *Sultany*, *Canter-Raya*, or *Ikeri Hanas* or *Fanams* ...	⅓
The *Vir'-Raya Hana*, or *Fanam* coined by the *Coorg Raja*...	¼

Silver.

Surati Rupiya, the *Rupee* coined at *Surat*, worth silver *Fanams*	5½
Company *Rupiya*, the *Madras Rupee* lately introduced, ditto	5½

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Copper.

Both the *Any Dudus*, or *Tippoo's* copper *Dubs*, and the *Bombay Paisa*, coined in England, are current here; and these with their fractions, $\frac{1}{3}$, $\frac{1}{2}$, and $\frac{1}{4}$, are the only small coin in use. *Cowries*, or small shells, are not in circulation.

In payment for goods, or debts, every person must receive these coins at the above rate of exchange. The money-changers give silver for gold at the regulated price; but they take a small *Batta*, or exchange, when they give gold for silver. They give copper for silver at the regulated price; but demand $10\frac{1}{2}$ *Dubs* for the silver *Fanam*.

Accompts. Merchants' accompts are commonly kept in *Sultany Pagodas*, *Rupees*, and *Anas*, or fractions of 16 parts; others are kept in *Pagodas*, a nominal *Hana* of 10 to the *Pagoda*, and *Anas*, or 16 parts of these *Hanas*.

I shall make my calculations by reducing all sums to *Sultany Pagodas*, and taking these at their mint value of a little more than 8*s*.

Weights.

Weights. The *Seer* (*Sida*) used for weighing ought to equal 24 *Bombay Rupees*, those in common currency having from 178 to 179 grains. I weighed a *Seer* in common use in the market (*Bazar*), and found, that it contained 4297 grains, which is more than the standard of 24 *Rupees*. The *Seer* is divided into halves, quarters, eighths, and sixteenths.

The *Maund* (*Muna*) by which goods are sold in the market, contains 46 *Seers*, or $28\frac{14}{100}$ lb.

The *Maund* by which the merchants purchase weighs 16 *Rupees* more, or is $28\frac{55}{100}$ lb. This is the weight by which the Company buys and sells.

Jagory is both bought and sold by a *Maund* of 40 *Seers*, or $24\frac{47}{100}$ lb.

The *Candy* (*Baru*) contains 20 *Maunds*, and varies, accordingly from 571 lb. to $489\frac{1}{2}$ lb. These calculations are founded on the weight of the *Rupee*. If the *Seer* that I weighed were taken as a standard, we must to the above mentioned weights add about one-third per cent.

Grain Measures.

Dry-measure. These differ not only in every village, but also as they are used for retailing grain in the market, for purchasing grain from the farmer, or for sowing the seed. These differences have, no doubt, been introduced in order to confuse the officers of revenue.

For retailing in the market here, the *Seer (Sida)* is formed by mixing equal quantities of salt and of the nine most common grains, and then, by taking of the mixture 84 *Bombay Rupees* weight.

This quantity, when heaped, fills a *Seer* measure, and is $73\frac{683}{1000}$ cubical inches. The *Moray*, or *Mudi*, contains 38 *Seers*, or about $1\frac{3}{10}$ bushel. 1801. Jan. 22.

The grain measure by which the farmers sell their crops is thus formed:

$64\frac{125}{1000}$ cubical inches = 1 *Hany*.
14 *Hanies* ... ... = 1 *Cullishigay*.
3 *Cullishigays* ... = 1 *Mudi* or *Moray*, or $1\frac{2525}{10000}$ bushel.

Grain, salt, and sometimes pepper, are sold by measure. Of this last a *Pucka Seer*, or $73\frac{683}{1000}$ cubical inches, is reckoned to weigh $51\frac{1}{2}$ *Bombay Rupees*.

In *Tulava* the era of *Salivahanam* is in use, and at *Mangalore* this is reckoned the year 1722; but in the north it is reckoned the year 1723, and the people there are certainly the most learned. The year of *Tulava* is solar. I here give an almanack for the current year, according to the *Brahmans* of *Carcutla*, who agree with those above the *Ghats* concerning the time of the era. Calendar.

Tulava Months.		European Months.		*Tulava* Months.		European Months.	
Era of *Sal.* 1723			*A. D.* 1800.	Era of *Sal.* 1723			*A. D.* 1800.
Sughi ...	1	13	March.	*Puggu* ...	1	13	April.
	2	14			2	14	
	3	15			3	15	
	4	16			4	16	
	5	17			5	17	
	6	18			6	18	
	7	19			7	19	
	8	20			8	20	
	9	21			9	21	
	10	22			10	22	
	11	23			11	23	
	12	24			12	24	
	13	25			13	25	
	14	26			14	26	
	15	27			15	27	
	16	28			16	28	
	17	29			17	29	
	18	30			18	30	
	19	31			19	1	May.
	20	1	April.		20	2	
	21	2			21	3	
	22	3			22	4	
	23	4			23	5	
	24	5			24	6	
	25	6			25	7	
	26	7			26	8	
	27	8			27	9	
	28	9			28	10	
	29	10			19	11	
	30	11			30	12	
	31	12			31	13	

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Tulava Months.		European Months.		*Tulava* Months.		European Months.	
Era of *Sal.* 1723.		*A. D.* 1800.		Era of *Sal.* 1723.		*A. D.* 1800.	
Baysha ...	1	14	May.	*Catialu.* ...	22	6	July.
	2	15			23	7	
	3	16			24	8	
	4	17			25	9	
	5	18			26	10	
	6	19			27	11	
	7	20			28	12	
	8	21			29	13	
	9	22			30	14	
	10	23			31	15	
	11	24			32	16	
	12	25		*Ati* ...	1	17	
	13	26			2	18	
	14	27			3	19	
	15	28			4	20	
	16	29			5	21	
	17	30			6	22	
	18	31			7	23	
	19	1	June.		8	24	
	20	2			9	25	
	21	3			10	26	
	22	4			11	27	
	23	5			12	28	
	24	6			13	29	
	25	7			14	30	
	26	8			15	31	
	27	9			16	1	August.
	28	10			17	2	
	29	11			18	3	
	30	12			19	4	
	31	13			20	5	
	32	14			21	6	
Catialu ...	1	15			22	7	
	2	16			23	8	
	3	17			24	9	
	4	18			25	10	
	5	19			26	11	
	6	20			27	12	
	7	21			28	13	
	8	22			29	14	
	9	23			30	15	
	10	24			31	16	
	11	25		*Sonay* ...	1	17	
	12	26			2	18	
	13	27			3	19	
	14	28			4	20	
	15	29			5	21	
	16	30			6	22	
	17	1	July.		7	23	
	18	2			8	24	
	19	3			9	25	
	20	4			10	26	
	21	5			11	27	

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Tulava Months.		European Months.		*Tulava* Months.		European Months.	
Era of *Sal.* 1723.			*A. D.* 1800.	Era of *Sal.* 1723.			*A. D.* 1800.
Sonay. ...	12	28	August.	*Buntäelu.* ...	5	20	October.
	13	29			6	21	
	14	30			7	22	
	15	31			8	23	
	16	1	September.		9	24	
	17	2			10	25	
	18	3			11	26	
	19	4			12	27	
	20	5			13	28	
	21	6			14	29	
	22	7			15	30	
	23	8			16	31	
	24	9			17	1	November.
	25	10			18	2	
	26	11			19	3	
	27	12			20	4	
	28	13			21	5	
	29	14			22	6	
	30	15			23	7	
Cannay ...	1	16			24	8	
	2	17			25	9	
	3	18			26	10	
	4	19			27	11	
	5	20			28	12	
	6	21			29	13	
	7	22		*Jarday* ...	1	14	
	8	23			2	15	
	9	24			3	16	
	10	25			4	17	
	11	26			5	18	
	12	27			6	19	
	13	28			7	20	
	14	29			8	21	
	15	30			9	22	
	16	1	October.		10	23	
	17	2			11	24	
	18	3			12	25	
	19	4			13	26	
	20	5			14	27	
	21	6			15	28	
	22	7			16	29	
	23	8			17	30	
	24	9			18	1	December.
	25	10			19	2	
	26	11			20	3	
	27	12			21	4	
	28	13			22	5	
	29	14			23	6	
	30	15			24	7	
Buntäelu ...	1	16			25	8	
	2	17			26	9	
	3	18			27	10	
	4	19			28	11	

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Tulava Months.			European Months.	*Tulava* Months.			European Months.
Era of *Sal.*1723.			*A. D.* 1800.	Era of *Sal.*1723.			*A. D.* 1801.
Jarday. ...	29	12	December.	*Pointaiu.* ...	16	27	January.
	30	13			17	28	
Perarday ...	1	14			18	29	
	2	15			19	30	
	3	16			20	31	
	4	17			21	1	February.
	5	18			22	2	
	6	19			23	3	
	7	20			24	4	
	8	21			25	5	
	9	22			26	6	
	10	23			27	7	
	11	24			28	8	
	12	25			29	9	
	13	26			30	10	
	14	27		*Mahi* ...	1	11	
	15	28			2	12	
	16	29			3	13	
	17	30			4	14	
	18	31			5	15	
	19	1	January 1801.		6	16	
	20	2			7	17	
	21	3			8	18	
	22	4			9	19	
	23	5			10	20	
	24	6			11	21	
	25	7			12	22	
	26	8			13	23	
	27	9			14	24	
	28	10			15	25	
	29	11			16	26	
Pointalu ...	1	12			17	27	
	2	13			18	28	
	3	14			19	1	March.
	4	15			20	2	
	5	16			21	3	
	6	17			22	4	
	7	18			23	5	
	8	19			24	6	
	9	20			25	7	
	10	21			26	8	
	11	22			27	9	
	12	23			28	10	
	13	24			29	11	
	14	25			30	12	
	15	26					

Pretensions of the *Tulava Brahmans.*

The *Brahmans* of *Tulava*, like the *Namburis*, pretend that the country was created expressly for their use by *Parasu-rama*, and that they are the only persons entitled to be called *Baliky*, or proprietors of the soil. It would not appear, however, that in *Tulava* this story was ever so successful as it has been in *Malayala*. The

Bráhmans indeed say, that they did not like the country, and were always running away to a city named *Ahichaytra*, which seems to be in *Telingana*. At length a prince, named *Myuru-Varma*, made all those here adopt some new customs; after which the *Panch-Dravida Bráhmans* of *Ahichaytra*, and they, could no longer live in communion. They allege, that *Myuru-Varma* reinstated them again in the whole property of *Tulava*. 1801. Jan. 22.

Actual tenures.

At present, however, the greater part of the country belongs to *Bunts*, and other *Sudras*, who style themselves proprietors (*Balikies*), although the *Bráhmans* are willing only to give them the title of *Mulacaras*, or tenants. The property, if ever it belonged to the *Bráhmans*, has been entirely alienated; nor is there even a pretence set up, of the *Bráhmans* having a power of redemption.

Mulacaras, Balikies, or proprietors.

The *Balikies, Mulacaras*, or proprietors, are answerable for the land-tax, called here *Shista*, and by the Mussulmans *Shist*. The estate is always called by the *Baliki* or proprietor's name, although it is often mortgaged to its full value.

Aduvacaras, or mortgagees.

The mortgagee is here called *Aduvacara*, from *Aduva*, a mortgage. The mortgagee pays the amount of the land-tax to the landlord (*Baliky*), who gives it to government. The remainder of the profit is retained by the mortgagee for the interest of the money that he has advanced, which is in general at the rate of 12½ *per cent. per annum*: in some places, however, it is only 10 *per cent.* Land is never mortgaged without a regular writing, wherein is mentioned the sum for which the estate is mortgaged. It may be resumed, by paying up this sum, whenever the landlord pleases; but, if the mortgagee has planted any trees, he must be paid for them at a certain fixed rate, which is known to be equal to the expense that he must have incurred. Many of the landlords retain their own estates, and cultivate much of them with their own stock; but about an eighth of the country has been mortgaged. Some landlords have mortgaged the whole of their estates, and, having had no hopes of being able to redeem them, have entirely left the country. The estates still, however, go by their names, and the tax is paid in their names by the mortgagees.

Gaynicaras, or tenants.

Both proprietors and mortgagees let part of their lands to tenants, or *Gaynicaras*. In this district, the tenant gives a writing, obliging himself to pay a certain rent, but receives no lease in return; and, whenever the land-holder pleases, may be ejected from his farm. In other districts, however, especially that of *Barcuru*, the tenant has a lease in perpetuity, of which he can only be deprived by his, or his heirs, failing to pay the stipulated rent. Some of this rent is paid in rice, and some in money.

Encouragement given to improvement.

When a tenant undertakes to plant a garden, he obtains a writing from the landlord, by which he is ensured of the payment of the expenses incurred, should the garden be resumed; and he pays no rent (*Gayni*) for a number of years sufficient to allow the garden to become productive. The amount of the expenses to be paid is

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1801. Jan. 22. settled by arbitration. When rice-land has been waste, the tenant for two or three years pays nothing, except the tax. This is the account given by the landlords.

The tenants ought, on rice-lands, to have one-half of the produce; so, at least, the proprietors say. The proprietors let very few of their gardens, this being a profitable kind of farming.

In this district (*Taluc*) there are no waste lands; but some fields, actually cultivated, were by Major Monro allowed to be considered as waste, on account of the clamours made by the natives of their poverty.

Hindu worship, how supported.

Although all the *Enams*, or charity lands, were ordered by *Tippoo* to be resumed, yet some belonging to temples have been concealed, as is acknowledged both by the *Tahsildar* and by the *Hindu* landlords. This has not been disturbed by Major Monro, nor his successor Mr. Ravenshaw; and an allowance is made by the government to both heathen temples and mosques. The principal *Hindu* temple here receives annually 120 *Pagodas*, and its lands produce 360, in all 480 *Pagodas*, or 193*l.* 8*s.* 3*d.* The people are very anxious for its being restored to its former splendour. Major Monro seems to have thought that very moderate expenses should be incurred in supporting the religious ceremonies of the natives, the allowances that he has made for the temples being in general very small. I do not find that this economy has had any bad effect; and it is impossible for a European to be more respected by *Hindus*, than Major Monro is by those who were lately under his authority.

All the lands of *Tulava* are private property, and pay a land-tax.

In *Tulava* the state has no lands; the whole is private property. All the land-tax is now paid in money; but before the conquest part of it was demanded in rice, and other articles of consumption for the troops, at a low rate, which was fixed by the Officers of government. The accompts contain solely the tax which each proprietor ought to pay. When a man alienates part of his lands, he agrees with the purchaser to take a part of the tax, and then the revenue of the new proprietor is entered in the public accompts under his name. The sum which he is to pay is always mentioned in the title deeds; and the government has a right to prevent any division, that is not in proportion to the value of the lands alienated; otherwise the revenue might suffer greatly. The proprietors allege, that the tax amounts to more than the rent, and that they are obliged to borrow money, or to give part of the profit from the lands cultivated with their own stock, to enable them to satisfy the claims of government. Those whom I had assembled to give me information, and most of whom were as fat as pigs, gravely told me, that they were reduced to live upon *Kanji*, or rice-soup. From what they say, therefore, no estimate can be formed of the share of the rent which they pay to government. Every one thinks himself bound to conceal the truth, and none more so than the native Officers of revenue. Every step, indeed, seems to have been taken,

by a chaos of weights and measures, and by plausible but false accompts, to keep the state of the country a profound mystery. 1801. Jan. 22.

Circumstances of the cultivator.

To judge from appearances, the occupiers of land in *Tulava* are richer than even those of *Malabar*, who are, no doubt, in easier circumstances than those in *Coimbetore*, or those above the *Ghats*. The universal cry of poverty, however, that prevails in every part of India, and the care, owing to long oppression, with which every thing is concealed, render it very difficult to know the real circumstances of the cultivator. We may safely however conclude, from the violent contest for landed property of every kind in *Canara*, that each occupant has still a considerable interest in the soil, besides the reward due to him for cultivating whatever his stock enables him to do. It is indeed sincerely to be wished that this property may long continue unmolested; as no country can thrive where the absolute property of the soil is vested in the state.

Farms and stock.

Cultivators who are rich keep from twenty to twenty-five ploughs, but at least one-half of the actual farmers have only one. Those who keep two, three, and four ploughs, are common. Near the sea there are many plantations, and some cultivators take care of these only; but, in general, each cultivator has some rice-ground, and some gardens. In the interior parts of the country very few have gardens. A farmer with four ploughs requires constantly six men, four women, and eight oxen. To transplant his rice, he must also hire women; ten are required to plant in two days a *Moray* land. The wages of these ten for two days is said to amount to 40 *Hanies*, or almost the value of the seed; which seems to be exaggerated. A farm, thus stocked, ought to contain 8 *Morays* sowing. Some people cultivate 10 *Morays*, but they do it imperfectly. The land, either for rice or false, it must be observed, is cultivated twice a year. I made many measurements to endeavour to satisfy myself with respect to the extent of what is called a *Moray*, or *Mudi* sowing; but, owing to some artifices of the natives, the results differed so essentially, that I can place no reliance on my own measurements, and am inclined to think the extent very indefinite. The average *Moray*, according to Mr. Ravenshaw's answer to my queries, is $1\frac{13}{100}$ acre. At this rate, the eight *Morays* cultivated by four ploughs would amount to little more than 9 acres, which is absurd. The least that can be allowed for a plough is, I am persuaded, six or seven acres.

Price of labour. *Culialu*, or hired servants.

The cultivation is chiefly carried on by *Culialu*, or hired servants; but there are also some *Muludalu*, bought men, or slaves. A hired man gets daily 2 *Hanies* of clean rice, or annually $21\frac{3}{4}$ bushels, together with $1\frac{1}{2}$ *Rupee's* worth of cloth, a *Pagoda* in cash, and a house. A hired woman gets $1\frac{1}{2}$ *Rupee* for cloth, and $\frac{3}{4}$ of the man's allowance of grain. In the planting season, the women hired by the day get two *Hanies* of rice, or $128\frac{1}{4}$ cubical inches. These wages are very high, and may enable the hired servants to keep a family in the

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greatest abundance. It is evident from hence, that the stock required to cultivate eight *Morays* of land was excessively exaggerated by the proprietors. The wages in grain alone, would amount to 156½ *Morays* of rice for 8 *Morays* sowing; so that, to pay even then, would require at least 40 seeds. We may safely allow six *Morays* for each plough fully wrought; but the number of ploughs in the whole district amount to rather less than one to 3 *Morays* of rice ground in actual cultivation, according to the revenue accompts; owing, probably, to a want of cattle and other stock. At the end of the year, the hired servant may change his service, if he be free from debt; but that is seldom the case. When he gets deeply involved, his master may sell his sisters' children to discharge the amount, and his services may be transferred to any other man who chooses to take him and pay his debts to his master. In fact, he differs little from a slave, only his allowance is larger, but then the master is not obliged to provide for him in sickness nor in old age.

Slaves.

A male slave is allowed daily 1½ *Hany* of rice, or three-fourths of the allowance for a hired servant; a woman receives one *Hany*. The man gets 1½ *Rupee's* worth of cloth, and 2 *Rupees* in cash; the woman is allowed only the cloth. They receive also a trifling allowance of oil, salt and other seasonings. A small allowance is given to children and old people. When a slave wishes to marry, he receives 5 *Pagodas* (2 guineas) to defray the expense. The wife works with the husband's master. On the husband's death, if the wife was a slave, all the children belong to her mother's master; but, if she was formerly free, she and all her children belong to her husband's master. A good slave sells for 10 *Pagodas*, or about 4 guineas. If he has a wife who was formerly free, and two or three children, the value is doubled. The slave may be hired out; and the renter both exacts his labour and finds him in subsistence. Slaves are also mortgaged; but the mortgager is not obliged to supply the place of a slave that dies, and in case of accidents, the debt becomes extinguished; which is an excellent regulation. Free men of low caste, if they are in debt or trouble, sometimes sell their sister's children, who are their heirs. They have no authority over their own children, who belong to their maternal uncles.

In this country the hill ground is never cultivated, except for gardens; the whole may therefore be divided into rice-land and garden ground.

Rice-land of three kinds.

The rice-land is of three kinds; *Bylu*, *Majela*, and *Betta*. *Bylu* ground is that in the lower part of vallies which are watered by small streams, from whence canals are dug to convey the water to the fields, which by this irrigation are able to give annually two crops. The *Majelu* land is higher than the *Bylu*, and is provided with small reservoirs, which ensure one crop, even when the rains last only two or three months. From some of these reservoirs, the water is let out by a sluice. It is raised from others by means of the *Yatam*, or by a basket suspended between ropes. The *Betta*

land is the highest part of the rice-ground, and is provided with neither streams nor reservoir; so that the crop depends entirely on the rain. In some places there is another kind of rice-ground called *Potla*. During the rainy season, it is so inundated, that it cannot then be cultivated; and, as the water dries, the rice is transplanted.

Bylu rice-land produces three crops annually.

On the *Bylu* land there are three crops in the year, 1st. *Yenalu*, 2nd. *Sughi*, and 3d. *Colaky*. This last is only produced by a few spots particularly favoured with water. The accompanying table will explain several particulars relative to the cultivation of rice.

Table explaining the Cultivation of Rice at *Mangalore*.

Kind.	Quality.	Soil.	Crop for which it is used.	Months required for this crop.	Manner of cultivation.	Increase in a good crop. Folds.	Produce of an Acre, supposing it to sow 1¼ Bushel.
Bily Ayki ...	White and small.	*Bylu*	*Yenalu*	5	transplanted	20	25
Ditto ..	Ditto... ...	ditto	*Colaky*	3	sprouted seed	5	6¼
Ditto ...	Ditto	*Majelu*	*Yenalu*	5	ditto	12	15
Jirigay Saly.	Very small ...	*Bylu*	ditto	5	transplanted	15	18¾
Amutty ...	Large and black.	ditto	ditto	5	sprouted seed.	20	25
Cagi Ayki ...	Ditto... ..	ditto	ditto	5	ditto	15	18¾
Ditto ..	Ditto... ..	ditto	*Colaky*	3	ditto	5	6¼
Atticaráya ..	Red and low priced	ditto	*Sughi*	3½	ditto	10	12½
Kiny Vettu...	.. ..	*Majelu*	*Yenalu*	3	ditto	10	12½
Ditto ..	... ...	*Betta*	ditto	3	ditto	8	10
Sampa Saly	... ...	*Majelu*	ditto	3½	ditto	10	12½
Soma Saly ..	... ...	ditto	ditto	3½	ditto	10	12½
Ditto ...	... ...	*Betta*	ditto	3½	ditto	8	10
Tungalu ...	... ...	ditto	ditto	3	ditto	8	10
Attigary ...	... ...	*Potla*	... ...	5	transplanted	10	12½

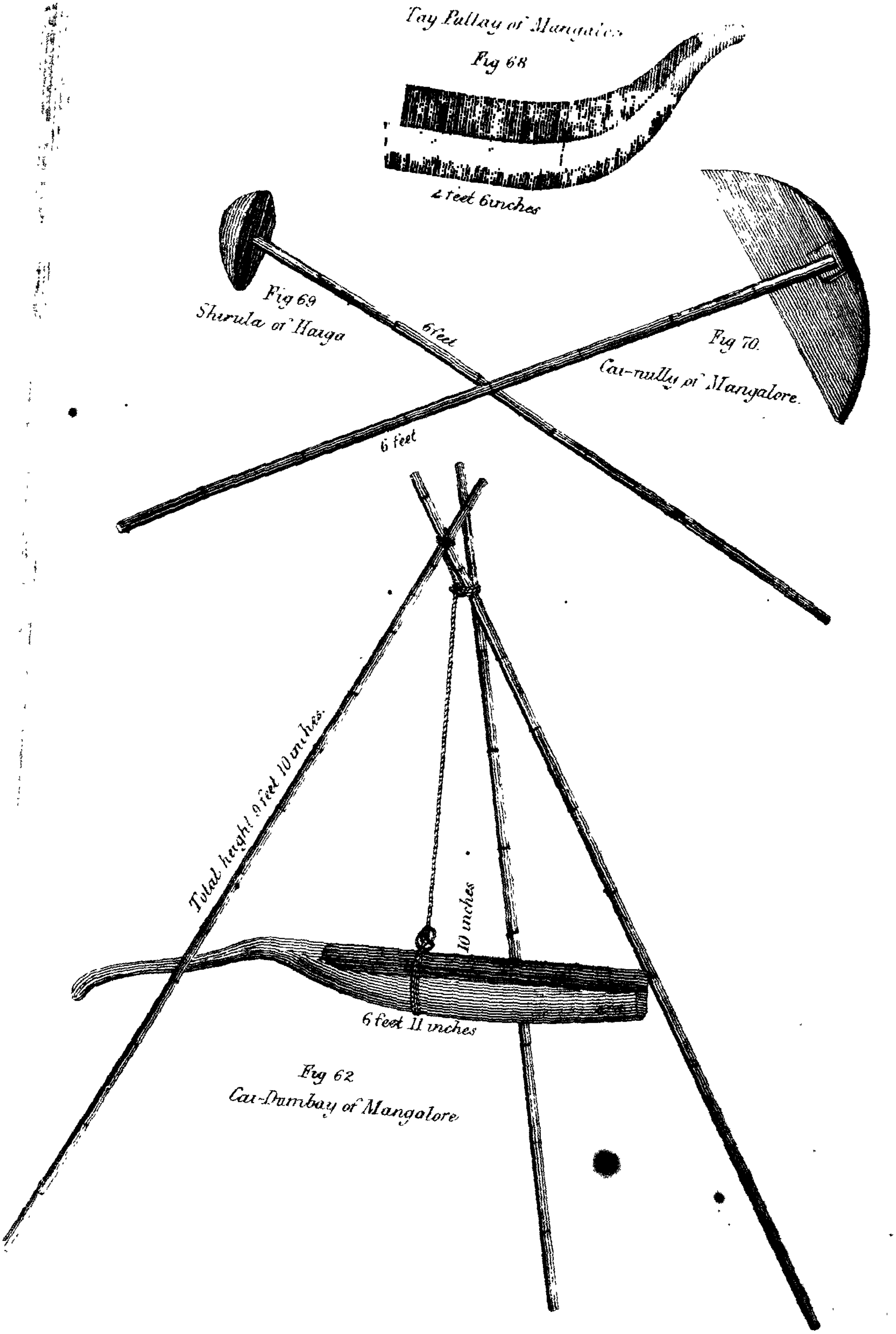
Yenalu crop, transplanted.

The kinds of rice that are transplanted for the *Yenalu* crop on *Bylu* land are cultivated as follows. Between the 14th of May and the 14th of June, water the ground intended for raising the seedlings for two days, and then plough it twice; all the water, except two inches in depth, being let off at each ploughing. The two ploughings must be repeated every other day, until the eighth time. The field, before the last ploughing, is manured with ashes, and with dung, in which, while in the cow-house, the leaves of every kind of bush and tree have been mixed. The mud is then smoothed with the *Mutu Pallay*, or plank drawn by oxen (Plate XXII. Fig. 58). The seed, prepared by causing it to sprout, is then sown very thick, the water being three inches deep. Next day the water is let off. On the fifth day, when the shoots come up, they get as much water as covers the half next the ground; and every day, as the plants

1801. Jan. 22. grow, the quantity of water is increased. On the ninth day the water is let entirely off, and is not given again until the eleventh day. If worms affect the plants, about the end of the third week the water is again let off for three days, and some ashes are sprinkled over the field to kill these destructive animals. The seedlings must be transplanted between the 30th and 35th days.

On the day that the seed is sown, the ground for receiving the seedlings when transplanted begins to be ploughed, and in the course of the month gets four double ploughings. The plough in use here (Plate XXII. Fig. 60) is neater than usual in India, but is an implement equally wretched. In the intervals between the ploughings, the field is kept inundated. At the time of ploughing, two or three inches only of water are allowed to remain. After every ploughing, the soil is smoothed with the plank drawn by oxen. Between the 4th and 5th of July all the water except one inch is let off, and the seedlings are transplanted. On the third day the field is drained; and for two days it is allowed to dry. On the sixth it receives 2 inches of water, and then is continued inundated until the crop ripens. Between the 5th and 6th of August the weeds are removed by the hand. In October, or at the beginning of November, the straw is cut with the grain, and, till it be dry, is allowed to lie on the ground. In Figure 61, the sickle is delineated. The rice is thrashed by beating handfulls of the straw against a grating of *Bamboos*, which is placed sloping from a stone to the ground: the grain falls through the grating. This operation is performed in the square surrounded by the farm-houses; for here, as well as in most parts of India, there are no barns. The rough rice is dried in the sun, and much attention is paid to this operation with what is intended for seed. The straw is spread out to the sun as much as possible; but, owing to the rain, is seldom got in well. The seed is kept in *Morays*, or straw bags, which are hung up in the smoke of the kitchen. The rice intended for consumption is put up in heaps, placed on straw, and covered with thatch. The husks are beaten off in the course of two or three months and immediately sold. The rough rice is put into large pots, overnight, with so much water as will cover it. In the morning it is boiled until the husks begin to open. It is then dried in the sun, and beaten in a small hole in the ground, or in a stone with a long pestle, the end of which is covered with iron. For the use of *Bráhmans*, a little is beaten without having been boiled; but it does not preserve long.

Yenalu crop sown *Mola*. The rices that are cultivated as sprouted seed for the *Yenalu* crop on *Bylu* land are thus managed. The ploughings and manure are conducted exactly in the same manner as in the field on which the seedlings are raised; but, in order to gain time, they are made fifteen days later. The seed prepared by putting the *Moray*, or straw bag, in which it has been kept, into water from the evening until next day at noon. The bag is then removed into the house, and in the morning of the fourth day is opened, the seed is sprinkled with dung and water and immediately sown. After having been sown, it is managed like



Tay Pullay of Mangalore
Fig 68
4 feet 6 inches
Fig 69
Shirula of Haiga
6 feet
Fig 70.
Cai-nully of Mangalore.
6 feet
Total height 9 feet 10 inches.
10 inches
6 feet 11 inches
Fig 62
Cai-Dumbay of Mangalore

the seedlings; but the weeds are removed about the 26th of July. 1801. The quantity of seed required for transplantation, is as two to three. Jan. 12

In the *Sughi* crop on *Bylu* land the rice is mostly cultivated as *Sughi* crop. sprouted seed. It is inferior in quality to the rice of the *Yenalu* crop, and is chiefly reserved for home consumption. Being reaped in the hot and dry season, the straw, though short, is well dried, and is a valuable supply of fodder. The sprouted seed for this crop is thus cultivated. Between the 16th of October and the 14th of November, immediately after the *Yenalu* crop has been reaped, the ploughings commence; and are carried on exactly as before described; only in place of one man's standing on the plank drawn by oxen, the ground being now harder, three or four men must stand on this instrument; a most barbarous and expensive manner of adding weight; but in India it is seldom that an attempt is made to accomplish any thing by machinery, that can be performed by human labour. The quantity of manure required for this crop is larger than that which is given to the first. If this crop be transplanted, it only produces six seeds.

The seed of the rices that are cultivated for the *Colaky* crop is *Colaky* crop of rice sown sprouted. Between the 12th of January and the 10th of February, immediately after having cut the *Sughi* crop, the ploughing for the *Colaky* commences, and the field is managed exactly as in the *Sughi* crop. In most places the water must be raised by the *Yatam*, called here the *Panay*, or by the instrument called *Caidumbay* (Plate XXV. Fig. 62), which makes the cultivation very expensive. The *Caidumbay* cannot raise water more than three feet, and is a means of irrigation very inferior to the basket suspended by ropes and wrought by two men. This crop requires a great deal of manure, otherwise it injures the following crop called *Yenalu*.

In place of this third crop of rice, where the quantity of water *Colaky* crop of other *grains*. is too small, a crop of *Urudu* (*Phaseolus minimoo*, Roxb. MSS.), *Padingi* (*Phaseolus Mungo*), or *Cudu* (*Dolichos biflorus*), is taken from the *Bylu* land. In some villages, but not in this immediate neighbourhood, a crop of *Enama* (*Sesamum*) is taken. For the three leguminous plants the ground in five days gets five double ploughings, and after each is smoothed with the plank drawn by oxen. It is then manured with dung and ashes, and the seed is sown broadcast, and covered by the plough; after which the soil is again smoothed with the plank drawn by oxen. Then, if the field be not sufficiently moist, it must be divided into small plots surrounded by little banks, and once in fifteen days it must receive water. The quantity of the seed required for these pulses, is one-fourth of that required for rice in the sprouted seed cultivation, or about five-sixteenths of a bushel an acre. The produce is about 8 seeds, or $2\frac{1}{2}$ bushels an acre.

In order to prevent the torrents of water, which in the rainy season run down from the hills, from injuring the *Bylu* land, a strong

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mound is formed round the bottom of the hills; and a channel above this mound conveys all the superfluous water into the sea, or into rivers. Coco-nut trees are frequently planted under the bank, or mound, in order to give it strength.

Majelu land.

All the rices cultivated on the second sort of rice land, called *Majelu*, are sown sprouted; only, any seedlings, that may happen to remain after planting the *Bylu* fields are put into the *Majelu*. The cultivation on this is exactly the same, and at the same season, as the *Yenalu*, or first crop on *Bylu* land. The water, in case of a deficiency of rain, is supplied from small tanks, which reserve a supply for fourteen or fifteen days after the rains are over. The seed required for this kind of land is said to be one-third more, than that required for the same extent of *Bylu*; but, on actual measurement, I found that a *Moray* of seed required considerably more *Majelu* than it did of *Bylu*. On a small portion of *Majelu* land, a second crop of *Cudu* (*Dolichos biflorus*) is taken. It is sown between the 16th of October and the 13th of November, and its produce is nearly the same as when cultivated on *Bylu* land.

Betta land rice.

The third sort of rice land, called *Betta*, is the same with the lower *Parum*, or hill-land of *Malayala*, which is there chiefly used for gardens. The rice cultivated on this is always sown sprouted, exactly in the same manner as the *Yenalu*, or first crop; only it requires two more ploughings, and a greater quantity of manure. The seed ought to be 1¼ of that which is required for the same extent of *Bylu*; but this also, I found, was not confirmed by actual measurement. This rice is kept for home consumption; for that of the *Yenalu*, or first crop from *Bylu*, or the lowest land, is the kind commonly exported.

Sugar cane.

It is upon this kind of ground that sugar-cane is cultivated; but very small quantities only are raised, and that entirely by the native Christians. Their method is as follows. Between the 14th of December and the 11th of January the ground, for four successive days, has a double ploughing, and, after each is smoothed with the plank drawn by oxen. Then, with a hoe, called *Haray* (Plate XXI. Fig. 56), parallel channels are formed, at the distance of every 8 or 10 cubits. At right angles to these, contiguous to each other, are formed trenches three quarters of a cubit deep, half a cubit wide at the bottom, and one cubit and a half at the top. The field is then manured with dung and straw; which, after they have been spread on the field, are burned; so that, in fact, the manure is ashes. The canes for seed are then cut into pieces, from half to three-quarters of a cubit long; and these are soaked in water a whole day and a night. On the day after the manure has been burned on the field, the soil in the bottom of the trenches is loosened with the hoe, and mixed with the ashes; and with these united the joints of the cane are slightly covered. They are placed horizontally, two and two, in lines parallel to the trenches; and the ends of one pair touch the ends of the two adjacent pairs. The

field is then watered, the channels being filled from a tank, or well, 1801.
by means of the machine called *Yatam*. Except when there is Jan. 22.
rain, it must be watered every fourth day, speaking as a medical man; that is to say, if it be watered on the 1st day of a month, it will be watered again on the 4th, 7th, 10th, and so forth. A compost having been formed of rich mould, dung and dry grass, it is burned; and on the 15th day from planting the ashes are spread over the field. At the end of the month, the weeds are removed by the hand, and with a small instrument named *Sulingy*. At the same time, the young canes are again manured with the burnt compost. At the end of the second month, if the cane has a sickly colour, it is again manured. The rains commence about that time, and then the earth from the intermediate ridges is gathered up round the young canes; which thus, in place of being in trenches, stand on the top of ridges. The field must then be well fenced. The dried leaves must be removed by the hand, which is all the farther trouble required, no watering being necessary after the rainy season is over. Jackalls eat the cane, and must be carefully watched. The cane is fit for cutting in 11 or 12 months. There are two kinds; the *Bily*, and *Cari Cabbu*; or white, and black canes. The former is the *Restali*, and the latter the *Putta Putty* of the country above the *Ghats*. The same ground will not produce sugar-cane every year; between every two crops of cane there must be two crops of rice. A piece of land that sows one *Moray* of rice, will produce 4000 canes, which are about six feet long, and sell to the *Jagory* boilers at from half to one *Rupee* a hundred. The *Moray* sowing of *Betta* land is here about 30,000 square feet; so that, according to the price of sugar-cane, the acre produces from about 58 to 29 *Rupees*, or from about 5*l.* 17*s.* to 2*l.* 18*s.* 6*d.* The land-tax is the same as when the field is cultivated for rice. The want of firewood is the greatest obstacle to this cultivation; the *trash*, or expressed stems, is not sufficient to boil the juice into *Jagory*, while that operation is performed in earthen pots placed over an open fire. If all the land in *Codeal Taluc* (district) that is fit for the purpose, were employed to raise sugar-cane, it would yearly produce 1000 *Pagodas* worth of cane; that is to say, there are about 1125 *Mudis* sowing of land, that once in three years might be cultivated. The quantity in the neighbouring district on the south side of the river is much greater. The *Jagory* made here is hard, but black, and of a bad quality. It sells at 3 *Maunds* for the *Pagoda*, or at 12*s.* 3½*d.* a hundred weight.

Between the rows of sugar-cane are raised some cucurbitaceous Kitchen stuffs.
plants, and some kitchen stuffs, that soon come to maturity.

On *Betta*, or the highest of rice-land, where the water may be had by digging to a [illegible]le depth, some people, chiefly Christians, cultivate capsicum, and *Banguns* (*Solanum Melongena*), as a second crop after rice. In good soils, these require to be watered once in three days; in bad soils, they must be allowed water every other day.

1801. Jan. 22. *Potla* land.

The kind of land called *Potla*, or *Mojaru*, is situated in deep places near the banks of rivers; and is so much overflowed in the rainy season, that, until the violence of this is over, it cannot be cultivated. Even in the dry season, it would in general be overflowed by the tide at high water; so that it is necessary to make banks to exclude the sea. The rice which it produces is always transplanted. Between the 17th of August and the 15th of September the seed is sown, and is managed in the same manner as the transplanted rice on *Bylu* land; only the season is different. The same quantity of seed is required for the same extent of *Bylu* ground; that is, one-half more than would be required for sowing broad-cast. This is a very precarious crop, being subject to be totally ruined by either too little or too much rain.

Poor land of every denomination requires more seed than richer land of the same kind.

Manure.

The leaves of every kind of tree and bush, except such as are prickly, are used for manure. The cattle are kept in the house all night, and their dung is collected for the same use. It is kept in pits, and every day's collection is covered with leaves; the whole dunghill thus forming alternate strata of dung and leaves, which soon rot. The ashes and sweeping of the family are kept in a separate pit. The soil of towns is never used as manure.

Palm gardens, soil fit for them.

In *Tulava* the coco-nut and *Betel-nut* are the only productions of the gardens that are taxed. The gardens are formed on hilly ground which has a red soil; but, as the trees require to be watered, such places only are considered fit for the purpose, as afford water by digging wells to no great depth, or as can be watered by forming reservoirs. The water of the wells is raised by the machine called *Yatam*; but the gardens thus supplied, although requiring a great deal of trouble, are equally valuable with those watered from tanks; for as these sometimes fail in the hot season, the crop for that year is lost, although the trees do not perish.

Cultivation of the *Areca* palm.

Here the *Areca* or *Betel-nut* palm forms separate plantations, which are surrounded by some rows of the coco-nut tree, and is not scattered about the gardens, as in *Malabar*. The following is the manner of making one of these plantations, as described by the proprietors. Between the 17th of December, and the 13th of February, the seed must be collected from trees that are at least fifty years old. Having been kept four days in the house, it is tied up in a *Môray*, or straw-bag, and is immersed for 25 days in the water of a well. In the mean time a small plot of rice ground is repeatedly ploughed until it be reduced to a fine mud, and is well manured with dung and ashes. In this mud the nuts are placed close to one another, with their eyes uppermost, and one half of them above the earth. Then the plot is covered with straw, and is watered once a day for a month. A piece of dry ground is then dug up with the hoe, and manured with dung and ashes. Into this the nuts which have now sprouted, are transplanted at half a cubit's distance

from each other. The nuts only are covered, and the sprouts are left projecting. For two months, if the soil be moist, it must be watered once in four days; if it be dry once in three days is sufficient. Another piece of ground is in the meantime prepared; and at the end of the two months the young seedlings are removed thither, and placed at the distance of one cubit from each other. In this nursery they remain eight months; and once in four days, when there is no rain, they are watered. In the meanwhile the garden is prepared by inclosing it with a dry hedge of prickly bushes. Within the hedge a row of coco-nut palms is planted, each being 24 cubits from the other. Within these, at 10 cubits distance from each other, are formed pits, two cubits in diameter, and two cubits deep. In the bottom of each of these is put a young *Areca*; all its roots are covered with fine mould, and it is manured with a little dung. This is between the 19th of October and the 16th of November, at the close of the rainy season. Every fourth day the pits must be watered, while the sun is excluded by branches and leaves. At the end of six months some dung must be given, and the weeds removed by the hand. Whenever there is no rain the waterings are to be continued; and twice a year the trees must be manured, and the weeds ought to be removed from near their roots. In two years the pits are filled up with the manure. At the end of five years another set of pits is made, one between every two of the old ones; and in these is placed another set of young plants, and managed as the first set. At this second planting some plantain trees (*Musas*) are set in the garden, but not above forty for the hundred *Arecas*. Near the hedge, in a line with the coco-nut palms, are also put some but *Jack* (*Artocarpus integrifolia*) and *Mango* (*Mangifera indica*) trees. When ten years old, the *Areca* begins to produce fruit; until the fifteenth year does not arrive at perfection. For thirty-five years it continues in full bearing. From its 50th year until its death, which happens in from its 70th to its 100th year, the quantity of fruit gradually diminishes, but its quality rather improves. The trees in full fruit produce annually three bunches, which ripen in succession between the 19th of October and the 16th of December. Each bunch contains from 30 to 100 nuts; so that, according to the natives, 200 nuts may be taken as the average produce of an *Areca* when it is in vigour. When the *Mango* and *Jack* tree have grown up, the pepper vines are usually put round them. Some people plant them also against the *Areca*, but they diminish its produce. *Yams* (*Dioscoreas*) are planted near the hedge.

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Manner of collecting and preserving the Betel-nut.

The *Betel-nut* is collected by a set of people called *Devadigas*, who are sometimes kept as servants, and sometimes hired for the crop season, at $1\frac{1}{4}$ silver *Fanam* a day ($5\frac{1}{4}d.$), part of which is paid in rice. A *Devadiga* in the forenoon cuts 25 bushes, and in the afternoon assists the family to prepare the nuts. If the season promise to be favourable, that is to say, not too rainy, when the nuts are three-quarters ripe, they are cut for *Wan'-Adiky*, or *dry-*

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betel. Immediately after they are cut, the husk is separated, and the nuts are then put into a pot, with as much water as will cover them, and boiled until the eyes (*Corculla*) fall out. They are then cut into eight pieces, and dried in the sun four days, being removed into the house at night, or on the appearance of rain. It is of great advantage to the *Betel* to be dried on a gray granite rock (*Bily Cullu*); but where that cannot be procured, it is dried on a piece of ground that is purposely made hard and smooth. For this operation, the *Devadiga* requires the assistance of four people, generally the women of the house; and they prepare daily 12 *Seers* measure of *Wan'-Adiky* ($\frac{655}{1000}$ peck). When the weather threatens to be rainy, the nuts are allowed to ripen on the tree for *Nir'-Adiky*, or *wet-betel*, which is thus prepared. The nuts, with the husk on, just as they are taken from the bunch, are put into large jars full of water, and the mouths of these are closely shut. In this state they cannot be preserved longer than four or five months, and are therefore taken for immediate consumption. A quantity adequate to supply the demand is daily taken out of the jar, and skinned as wanted. The knives used in preparing *Betel-nut* are delineated in Plate XXII. Figs. 63, 64.

Expense of cultivation.

A garden of 300 *Arecas*, which is one of a middling size, if it be watered by a well, requires the labour of six people, but of three only if it be watered by a tank. In the rainy season, however, while the cultivation of rice is chiefly carried on, the three men who are employed to raise the water have nothing to do in the garden, and are employed on the rice ground; even the three other men may be a few hours daily employed at any other kind of work. In fact, I suspect that the men, who spoke of six servants and four ploughs being requisite to cultivate 8 *Morays* of rice-land, ought to have added to the account an *Areca* garden of 300 trees. These men get $1\frac{1}{2}$ *Pagoda* a year in money, 2 *Rupees* worth of cloth, and eat three times a day in their master's house.

Black pepper.

The pepper is managed as follows. Between the 24th of May and the 22d of June, the ground near the tree upon which it is to be trained is dug with a hoe. Then two, three, or four cuttings of the pepper vine, each a cubit long, are put in the ground, one end then being allowed to project. They are then covered with grass. This is done when the rainy season commences. A month afterwards they get a little dung. As the vines shoot, they are tied to the tree. When the dry season commences, they must be watered every second day, until a year old, after which they require water once in four days. Twice a year also they must get manure of dung and leaves; and long grass, or bushes, must be prevented from growing near their roots; but there is no occasion to dig or plough the whole ground. They begin to bear in the fifth year; but are not in full crop until the eighth. If the worms attack the vine, they die in twelve or fifteen years; but otherwise they live twenty-five, and all the while produce good crops. When any vine dies, a new one is

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planted in its stead. Here they are trained upon the *Pongary* or *Hongary* (*Erythrina*), the *Nuriga* (*Moringa*), *Jack* (*Artocarpus*), *Mango* (*Mangifera*), *Areca*, coco-nut, and tamarind. The first is, however, most commonly employed, and in this country lives fifty years. It is not customary here to prune the trees upon which the pepper is trained. Each tree, according to the number of vines that it can support, produces from two to four *Pucka Seers* measure, or from $\frac{5483}{10000}$ parts to $1\frac{0667}{10000}$ of a Winchester gallon, which will weigh from $2\frac{625}{1000}$ lb. to $5\frac{25}{100}$ lb. When one or two berries begin to appear red, the whole are collected by pinching off the *amenta*. A man, in one day, can take the fruit from three trees, that is to say, can cure about 12 pounds of pepper. It is kept all night in the house. Next day the berries are rubbed off with the hands, and picked clean. They are then dried three days on mats, or on a piece of smooth hard ground, and every night are taken into the house The pepper is then fit for sale, and the common price is one *Vir-Raya Fanam* for the *Seer*, which is at the rate of 106½ *Rupees* a *Candy* of 560 lb. the weight here in use; or at the rate of 150 *Rupees* nearly for the *Candy* of 640 lb., which the cultivators in *Malabar* employ. The export price is on an average 136 *Rupees* for the small *Candy*; but in this the merchant's profit and the customs are included.

Sale of black pepper.

The crop season is between the 12th of January and the 13th of February. Some people take advances; but the practice does not seem to be so prevalent as in *Malabar*, and the terms are somewhat more reasonable, although abundantly severe on the imprudent cultivator. If the advance be made six months before the time of delivery, the borrower gets three-fourths of the value of the pepper; so that the lender has a profit of one *Rupee* for every three advanced, or 33⅓ *per cent*. If, however, there is a delivery short of the stipulated quantity, the merchant gets back only a proportional part of the advance, with interest at the rate of three-fourths of a *Rupee* for the *Pagoda per annum*, that is to say, 18¾ *per cent*.

Coco nut plantations.

Although I examined both the cultivators and extractors of palm wine concerning the plantations of coco-nut trees, the account that I can give of them is not at all satisfactory; what they said being in some places evidently false, and in others contradictory.

Account of them by the proprietors who cultivate their own gardens.

The cultivators say, that the seed must be allowed one whole year on the tree to ripen, and must be the produce of a palm above fifty years old. After being plucked, it is kept four months in a place which is sheltered from the sun and rain. Then it is put in a well, and kept a month under water. A small plot of dry ground is then dug, and manured with dung and ashes. In this the coconuts are placed, at one cubit's distance from each other, and buried so as just to be covered above the eyes, which are placed uppermost. The plot must be near a tank or rivulet, from which with a wooden scoop, *Tay-pallay* (Plate XXV. Fig. 68), the water is thrown into it every other day when there is no rain. If there be rain, pains must be taken to prevent too much from lodging on the plot. These ope-

1801. Jan. 22. rations may be performed at any season; so that the young plants, after remaining in the plot from 12 to 15 months, may be fit for transplanting between the 22d of July and the 20th of August. In this month square pits two cubits in width, two cubits deep, and at 24 cubits distance, are dug; and in the bottom of each is placed a coco-nut with its young shoot, which then is about three feet high. Round it are placed a *Seer* of salt, some ashes, and as much fine mould as will rise four inches above the nut and roots. The young plant must be watered every other day, until the second leaves expand, which will be in about six weeks. In dry weather they must, for at least five years, be watered once in four days. In low grounds near the sea or inlets, the trees after this age require no watering; but on high ground, during the dry season, they must be watered as long as they live. In both situations the trees must be manured twice a year with ashes, dung, and leaves; and, if at a distance from the sea-water, they must at the same time get a little salt. When the first set are from five to ten years old, another set is planted in the spaces between them. They arrive at full perfection in twelve years, and continue in vigour until sixty. Those in plantations near the sea die at this age. These require no trouble; but after five years of age to be manured once in six months; and here no plantation is hoed or ploughed. Every second year, in the rainy season, between the 24th of May and the 16th of November, those trees which grow in low places near the sea are let for six months to the people who extract the juice. During this time, owing to the quantity of rain, the nuts in such situations do not ripen. In the year in which juice is extracted, the tree gives four bunches of nuts; in the intermediate year it gives six bunches. According to the farmers, a garden on high ground, that contains 500 trees, if watered by a tank, requires twenty men to work it; if watered by a well, it requires thirty men in the rainy, and forty in the dry season. This, however, must be an excessive exaggeration. In the dry season these trees may once in three years be let for extracting juice; but the practice is not common. Each tree, while in vigour, ought annually to produce fifty nuts. Those on the low ground produce more, but on the high-land they live much longer. They there continue in full vigour until sixty years old, and for about ninety more gradually decay.

Account given by the *Biluaras*, who extract the juice.

The men who extract the juice in general hire the trees when these are fit for their purpose. The rate that they give seems very low, being only one-fourth of a *Rupee* for three trees near the salt-water, and one-fourth of a *Rupee* for four or five trees growing on hill-land; and there must be some mistake, as both to the north and south the rate for each tree is half a *Rupee*. It is true, that here the trees are never exhausted, and, even in the year in which juice is taken, produce a crop of nuts. According to the *Biluaras* the trees near the sea can at all times yield juice, those growing on hills produce it only in the rainy season; which is directly contrary to the

assertion of the cultivators. The juice is partly sold, for drink, while fermenting; partly distilled into a liquor called *Gungasir*; and partly boiled into *Jagory*. 1801. Jan. 22.

Customs of this caste.

The people who follow the business of extracting juice from palm trees, in their native language of *Tulavá* are called *Biluaras*; but in that of *Karnata*, which the people of rank here commonly use, they are called *Halepeca Davaru*. Their proper business is to extract juice from palm trees, to boil it down to *Jagory*, or to distil it into spirituous liquor; but many of them also cultivate the ground, a few as masters, but many more as *Culialu*, or hired servants. Some of this caste have now settled above the *Ghats*. These will marry the daughters of the people remaining in *Tulava*; but those here will not marry a girl from *Karnata*, because the property there goes to a man's children, but here it goes to the children of his sisters; and, if he married a girl from *Karnata*, her brothers would not receive the children. The *Biluaras* pretend to be *Sudras*, but acknowledge their inferiority to the *Bunts*. The business of the caste is settled by a person called *Guricara*, who is appointed for the purpose by the government, and who, with the assistance of a council of elders, has the power of excommunication, and of inflicting corporal punishment. None of this caste can read. They are permitted to eat animal food, but ought not to drink intoxicating liquor. The men are allowed a plurality of women, who live in their houses; but on the husband's death the widows, with their children, return to their brother's houses, and the eldest son of the eldest sister of the deceased person becomes master of his house and property. If a man fall into poverty, his children go to their uncle's house, before their father's death. Girls continue to be marriageable after the age of puberty; and a widow, or divorced woman, may marry again. A man may turn away his wife when he pleases; but a woman cannot leave her husband without his consent. This however, by committing adultery with any person of the caste, she can in general procure; for few husbands retain their wives when unfaithful; and she is not disgraced, but may get another husband, or at any rate she can live with her brother. Those who are in easy circumstances burn their dead; those who die poor are buried. The spirits of good men are supposed to go to a heaven called *Sorgum*, those of bad men are sent to a place of punishment called *Nuraka*. They seem to have no idea of transmigration. A few of them worship *Vishnu*; the greater part, however, never pray to any of the great gods, but content themselves with an annual sacrifice to *Marima*, and the other *Saktis*, by which they hope to avert the evils that are occasioned by these agents of *Siva*. Their women are, liable to disorders that are attributed to the influence of *Paisachi* or evil spirits. These are not appeased by sacrifices; but the *Biluaras* apply to the *Cunian*, whose *Mantrams*, they fancy, are capable of casting out these devils. None of the *Biluaras* have *Purohitas* to read *Mantrams* or *Sastrams* on occasion of any ceremony,

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such as marriage, or the commemoration of their deceased parents; nor have those who confine their worship to the *Saktis* any *Guru*; but those who pray to *Vishnu* are subject to the *Sri Vaishnavam Bráhmáns*, who accept of their *Dharma*, or duty, and bestow on them *Upadesa*, *Chakrantikam*, holy-water, and the like.

Account of the coco-nut plantations by the tenants.

But to return to the gardens. The tenants (*Gaynigaras*) not only differ from the *Biluaras*, but also give a different account from the proprietors (*Mulucaras*). They say, that when they are disposed to plant a garden, they agree with a proprietor for a piece of ground suited to the purpose. They agree to give him a fixed annual rent in money; and so long as they pay this, the garden cannot on any pretence be resumed. In case of a deficiency of rent, the proprietor may resume the garden; but he must pay the tenant for all improvements made by planting. The value of each kind of tree is fixed, and is not left to arbitration, as was alleged by the proprietors. For coco-nut palms the value differs, according to their age, from one to three *Rupees*. A *Betel-nut* palm is valued at one-fourth of a *Rupee*; ten or twelve fruit trees at one *Rupee*; a tree covered with pepper vines one *Rupee*. The expense of rearing all these must be as great here as in *Malabar*; and we may safely conclude, that these values at least equal the expense incurred. A tenant cannot sell his garden; but he may at any time go to the proprietor and compel him to take it off his hands, and to pay the value of the trees. The tenants sometimes hire gardens that have been brought to maturity. In this case, they pay a certain sum for each palm, but nothing for any of the other articles that are reared in the garden. The proprietor continues to cultivate the garden and to keep up the number of the trees. This seems to be a reason for the low state at which the cultivation of pepper is in *Tulava*; as the proprietor is not at all interested in increasing the number of vines.

Betel-leaf.

Betel-leaf (*Piper Betel*) is here cultivated in separate gardens, as is the case in most parts of India, except in *Malabar*. For this purpose, a red stony soil on the side of a rising ground is preferred. Some of the gardens are watered from tanks; others, by means of the *Yatam*, from wells, in which the water stands from 12 to 24 feet under the surface. Between the 23d of April and the 23d of May the ground is first dug, and is then formed into beds six cubits wide, which are separated by trenches three-fourths of a cubit broad, and half a cubit deep. In the centre of each trench, at four finger-breadths from each other, are planted, in a row, cuttings of the *Betel-vine*, each a cubit in length. If there is no rain, they must be slightly watered five times a day, and then covered with branches to keep off the sun. At the end of the first and second months, a little fresh red soil, mixed with small stones, are put in the bottoms of the trenches. At the end of the third menth, a row of branches, at six or eight cubits from each other, is planted on each side of every trench. The branches are intended to grow up to trees as supports to the vines. Those chosen are the *Pongary*

(*Erythrina*), the *Nuriga* (*Moringa*), and the *Agashay* (*Æschynomene grandiflora*). At the same time, a little more earth and some dung are put into the trenches. In the sixth month more earth and dung is given; and, *Bamboos* having been tied horizontally along the rows of branches, the young *Betel-vines* are tied up to these. At the same time, in the middle of every second bed, a channel is formed, which every other day is filled with water; and from thence, by means of the *Tay-Pallay* (Plate XXV. Fig. 68), the water must be thrown on the plants. Every month, a little dung and red earth is put to the roots of the vines, and these are tied up to the *Bamboos* and trees. When a year old, the garden begins to produce leaves for sale; after which, once in two months, it requires to be manured, and in dry weather to be watered once in two days. In the centre of each of the beds that have no channels, is then put a row of plantain trees. The garden is generally surrounded by a quickset hedge, at other times by a dead hedge of prickly bushes, and in the interval between the fence and vines are planted *Capsicums*, and other kitchen stuffs. Every four years the *Betel-vines* die; but in their stead others are immediately planted, a new trench being dug in the situation of each old one. In eighteen or twenty years, the soil having been exhausted, all that is near the trees is removed, and in its place fresh red earth is brought into the garden. The trees last for fifty or sixty years; but when, by accident, one dies sooner, a fresh branch is planted to supply its loss. These substitutes, however, do not thrive. When, from old age, the whole trees begin to decay, the garden is abandoned, and a new one is formed in another place. If the garden receive its supply of water from a reservoir, the cultivator, each time that he plants, pays to the proprietor 10 gold *Fanams*, or 2½ *Rupees* for every 1000 vines. In the three intermediate years he pays nothing. If the water be supplied from a well, the rent is only half of the above mentioned sum.

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Cattle and fodder.

The cattle employed in labour here are chiefly bred in the inland districts about *Subhramani*, and are no larger than those of *Malabar*. From the month of January, until the commencement of the rainy season, they are supported on fodder. Between the 17th of November and the 16th of December a bad hay is made of the long grass which grows naturally on some hills that are purposely kept clear of bushes. This hay is chopped, and is boiled with rice husks for three hours; of this the oxen are allowed a quantity morning and evening; half a *Maund* (14 lb.), the people say, would be a good allowance. At night they get rice straw to the amount of about three-fourths of a *Maund* (21 lb.), as the people whom I consulted conjecture; but, from the appearance of the cattle, the quantity allowed cannot be near so much. The people indeed merely spoke by guess, no *Hindu*, so far as ever I heard, having thought of weighing fodder. At the end of the dry season the cattle, as usual in India, become very poor; but in the rainy season those here are

1801. Jan. 22. fat, and the cows are entirely supported by pasturing on the hills: at night the working cattle are allowed rice straw. An ox is wrought from sun rise until noon only, and is allowed the afternoon to pasture. Epidemic diseases are sometimes very destructive, and are attributed to a contagion which is supposed always to originate above the *Ghats*. An old man says, that he remembers twenty times the prevalence of this epidemic; but that seems to be speaking in round numbers: for the five last years there has been no disease of the kind. A good cow gives twice a day half a *Seer* of milk. For this purpose few female buffaloes are kept, but a great many males are employed in the plough. Swine are kept by some of the low castes; but the pork of tame swine is an abomination with the *Bunts*, as with all the higher ranks of *Hindus*, although many of them are fond of the meat of the wild hog. No horses, sheep, goats, nor asses are bred in *Tulava*; nor have its inhabitants any carts.

Salt. Salt is made on this coast by a process similar to that used in *Malabar*; but the quantity manufactured is very inadequate to the demand of the country. A low piece of ground covered by the flood, but dry at low water, is chosen, and surrounded by a bank that is capable of excluding the tide. By means of a tunnel passing through the bank, and formed of a hollow coco-nut tree, the salt water can at pleasure be admitted. A sufficient quantity having been received, the tunnel is shut; and, when the water has evaporated, the soil is very strongly impregnated with salt. Brine is formed, as usual in India, by filtering salt water through this saline earth. The brine is exposed to the sun in small plots, levelled, and rendered impenetrable to water by a coating of clay and sand well beaten together, and rubbed smooth with a stone. To form the salt requires 28 hours evaporation; and it can be made only between the 26th of March and the 23rd of May. The man who makes it gets from the government an advance of five *Pagodas* in cash, and of rice to the same amount. He repays the money, but not the rice, and pays on an average a tax of 43 *Pagodas;* so that, in fact, government gets from him 38 *Pagodas* (15*l.* 16*s.* 3*d.*) for an ordinary salt-field. Larger or smaller ones pay in proportion. The manufacturer sells his salt as he pleases. It is mixed with a considerable quantity of earth impurities, but not with more than the common salt of *Bengal* contains. The grains are large and cubical, and often adhere together in large porus masses. It seems to be very deliquescent. The common price is 1129 *Seers* for the *Pagoda*. The *Seer* measures 76½ cubical inches; the bushel therefore, including the duties, costs less than 2½*d*.

No mines. No iron is made in the province of *Canara*.

Commerce. Having assembled the principal traders of this place, they say, not only that the trade of the place has decayed greatly since the time of *Hyder*,* which may possibly be true; but they also assert, contrary to the evidence of the custom-house accompts, that since the fall of *Tippoo* the imports have diminished greatly. They acknowledge, however, that under this prince the merchants suffered terrible

oppressions, and that under his government the greater part of them were ruined. *Hyder* had collected them together with great pains, and he always allowed a *Lac* of *Rupees* (10,073*l.* 12*s.* 2½*d.*) to be in advance to honest and industrious, but poor men; by which means such valuable persons were induced to come from great distances, and to settle at this place. The principal merchants in *Hyder's* time were *Moplays* and *Kankánies;* a few came from *Guzzerat.* Since the Company has acquired the government of the country, many men of substance have come from *Surat*, *Cutch*, *Bombay*, and other places to the north. These men are chiefly of the *Vaisya* caste, but a good many *Parsis* are among them. The shopkeepers are still mostly *Moplays* and *Kankanies.* The *Bunts* are now beginning to pursue commerce. The vessels employed in trade chiefly belong to other ports. 1801. Jan. 22.

Exports.

Rice is the grand article of export. It is sent to *Muscat, Bombay, Goa,* and *Malabar.* The duties on its exportation were lowered by Major Monro; but that has made no material difference in the price, and the cultivators are not sensible of any benefit from this measure. The average price, including duties and shipping charges, varies, according to its quantity, from 24 to 18½ *Pagodas* a *Corge* of 42 *Morays.* This makes the price from almost 3*s.* 6½*d.* to 2*s.* 8¾*d.* a bushel. The cultivators, of course, sell it lower; about 2 *Morays* for a *Pagoda* may be the average price that they get for good rice, which is 3*s.* 1*d.* a bushel. The coarser kinds are lower in proportion.

Next to rice, *Supari* or *Butel nut* is the chief export. It is sent to *Surat*, *Bombay* and *Cutch.* The export price of the raw nut is 14 *Pagodas* a *Candy*, or 1*l.* 2*s.* 4½*d.* a hundred-weight. That of the boiled nut is 15 *Pagodas*, or 1*l.* 3*s.* 11¾*d.* a hundred-weight.

Black-pepper the merchants reckon the next greatest article of export; but, to judge from the custom-house accompts, it would seem to be more considerable. Its average price is 34 *Pagodas* a *Candy*, or 3*l.* 1*s.* 1*d.* a hundred-weight. The customs on pepper are lower here than in *Malabar*, and no rent nor tax is exacted from the cultivator; yet the price at *Mangalore* is higher than at *Tellichery*, and the cultivation is more neglected.

Sandal-wood is sent to *Bombay*; but it is all the produce of the country above the *Ghats.*

Cassia, called here *Dhát-China*, or cinnamon, is sent to *Muscat, Cutch, Surat,* and *Bombay*; and is exported at 9 *Pagodas* the *Candy*, or 14*s.* 4½*d.* the hundred-weight. The buds of this tree are called *Cabob China*, which seems to be the origin of the European word *Cubeb.* They are exported to the same places.

Turmeric grows in the country, and is exported to *Muscat, Cutch, Surat,* and *Bombay*, at the rate of 8 *Pagodas* a *Candy*, or 12*s.* 9½*d.* a hundred-weight.

Imports.

The chief imports, according to these merchants, are blue cotton cloths from *Surat*, *Cutch*, and *Madras.* The *Surat* cloth is the most common. It is 36 cubits long, two broad, and of a very dark

1801. Jan. 22. colour, and sells for from 18 to 50 *Pagodas* a *Corge*, or from $3\frac{4}{5}$ to 10 *Rupees* a piece.

Coarse white cotton cloth from *Cutch*, *Bavanagur*, and other places north from *Bombay*.

Salt from *Bombay* and *Goa*. The former sells at 70 *Pagodas* a *Cumbu*, and the latter at 50 *Pagodas*; the former is a little more than $3\frac{1}{4}d.$, and the latter than $2\frac{1}{2}d.$ a bushel.

Raw-silk, for the use of the manufacturers above the *Ghats*, is imported from *China* and *Bengal*; and from *Muscat* a kind of red dye, called *Munjisht*, which I believe is a species of madder.

Sugar is imported from *Bengal* and *China*, and oil and *Ghee* (boiled butter) from *Surat*.

Much of the cloth used in the country is brought from above the *Ghats*; partly by the merchants of this place, and partly by those of *Bangalore* and *Cuddapa*.

CHAPTER XV.

JOURNEY FROM MANGALORE TO BEIDURU.

JANUARY 29th.—I went about ten miles to *Arcola*, which is also called *Feringy-petta*, having formerly been chiefly inhabited by the Christians of *Kankana*, invited to reside here by the princes of the house of *Ikeri*. Its situation, on the northern bank of the southern *Mangalore* river, is very fine, and it was formerly a large town. After *Tippoo* had taken General Mathews, he destroyed the town, and carried away its inhabitants. One end only of the church remains, which however shows that it has been a neat building. Its situation is remarkably fine. 1801. Jan. 29 *Feringy-petta.*

Even now the river contains a great deal of water, and in the rainy season it is very large. Its banks, like those of the *Panyani* river, are very beautiful and rich. Indeed the whole country entirely resembles *Malabar*, only the sides of the hills have been formed into terraces with less industry. As no hill-rice is cultivated in this vicinity, the terraces are formed at the roots of the hills only, where the gardens in *Malabar* are situated. According to the report of the natives, not one-fourth part of the ground fit for gardens is now planted. They say, that *Tippoo*, in order to remove every inducement for Europeans to frequent the country, destroyed all the pepper vines, and all the trees on which these were supported. Much of the rice land is so well watered by springs and rivulets, that it produces a constant succession of crops of that grain; one crop being sown as soon as the preceding one has been cut. Although here the steep sides of the hills are not formed into terraces, as in *Malabar*, yet the gently sloping lands are formed into rice-fields that are cultivated once a year. In *Malabar* they would be either planted, or reserved for the cultivation of hill-rice, *Sesamum*, or the like; and would yield a crop once only in three years. *Mangalore* river. Appearance of the country.

30th *January*.—Yesterday a considerable part of my baggage lost its way; and although accompanied by two guides, and travelling on the most public road in *Canara*, I did not discover my tents until two o'clock this morning. The guides and attendants, in excuse for their stupidity, alleged, that they were misled by the reports of the natives, who had informed them of my having passed places which I never had been near. The cattle were so much fatigued that I would not proceed; so I employed the day in collecting plants. Jan. 30. Stupid guides.

1801 Jan. 31. Appearance of the country.

31st *January*.—In the morning I went three *Sultany* cosses to *Nagara Agrarum*. The road in general is bad even for oxen. The country is similar to that between *Mangalore* and *Arcola*. Most of the hills are clear; but many palms of the *Borassus* kind are scattered throughout the country, and the little vallies are finely watered with clear perennial rivulets. These are confined by dams; so that it is said, that about one-fourth part of all the low rice land in *Buntwala* district (*Taluc*) produces annually three crops of rice.

Buntwala.

About a coss from *Nagara* I passed through an open town named *Buntwala*, which at present contains about 200 houses. In the last war the *Coorg Rájá* destroyed about 200 houses, and carried away one half of the inhabitants. Many new houses are building; and, as I passed through, I observed, that the people were deeply engaged in the bustle of commerce, and from their appearance were in good circumstances. They carry on a great trade between *Mangalore* on the one hand, and *Hasina, Bailuru, Wostara, Singa-pura-petta, Narasingha-pura,* and *Attigupa* on the other. From the neighbouring country they also collect much rice for exportation.

Netrawati river.

The town is situated on the north bank of the river passing *Arcola*, and which is named the *Netrawati*. Since I left *Animalaya*, this is the first river that I have found possessing a name. The tide flows no higher than *Arcola*; but canoes carrying 100 *Morays*, or about 130 bushels of rice, can at all seasons ascend five or six cosses above *Nagara*. The channel is very wide, and full of rocks, which in the dry season form many islands, among which the river winds with a gentle current. In the rainy season, canoes can ascend six cosses farther than they can do at present. There are two branches of the river, which join five cosses above *Nagara*. The northern branch is the largest, and comes from the same place that gives rise to the *Tunga* and *Bhadra* rivers.

All the way I observed many iron guns lying near the road; and was told that *Tippoo*, when he destroyed *Mangalore* fort, ordered all the guns to be transported to *Seringapatam*; but the people entrusted with performing this duty were bought off by the labourers, and found out various pretexts for leaving most of the guns on the road. By the natives they are considered as totally useless.

Nagara Agrarum.

Nagara Agrarum, as its name implies, is a village, inhabited by *Brahmans*, of whose houses it at present contains thirty. They were brought here 70 or 80 years ago, and land was assigned for their support by *Colala Vencatashya*, a *Bráhman* in the service of *Somasèkara Náyaka*, the son of *Sivuppa Náyaka*, the first prince of the house of *Ikeri*. The *Tahsildár* of *Buntwala* resides here; for, being a *Bráhman*, he naturally prefers the society of *Nagara* to that of the traders of *Buntwala*. His district (*Taluc*) contains four *Rájáships*; *Choutar, Bungar, Ajelar*, and *Mular*. These *Rájás* were all *Jain*. The families are still extant, but have neither authority nor public revenue. They support themselves by their private estates.

Soil of Tulava.

The soil of *Tulava* gradually grows worse for grain, as it is

distant from the sea. The best in quality extends from *Mangalore* to *Buntwala*; the next from thence to *Punjalcutta*; and the worst from thence again to the hills. There the rains are so excessive, that they injure the crops of rice, as indeed happens in *Malabar*; but it is allowed, that this inland portion of the country is very favourable for plantations. 1801. Jan. 31.

1st *February*.—I went three cosses to *Cavila-cutty*. The hills are much higher than those to the westward, and some of them are covered with tall thick forests, in which are found *Teak* (*Theku*) and wild *Mango* (*Mangifera*) trees, and the plam which Linnæus called *Caryota*. These hills abound with tigers, which have of late killed several passengers. The road all the way is tolerably well formed, but the engineer has paid no attention to avoid hills: some parts of it are excessively steep. I passed many oxen, loaded with salt, going to the *Mysore* dominions, and I met many coming from thence loaded with iron. Feb. 1. Appearance of the country.

The road, part of the way, led along the south side of a small river called *Bambilu*. A dam has been formed on it, which confines a great body of water, so that it serves also as a reservoir. Irrigation.

My halting-place was at a small temple dedicated to *Culimanatia*, one of the *Saktis*. Near it is a small temple belonging to the *Jain*, and a tree, which is surrounded by a terrace for the repose of passengers. Such a tree, in the languages of *Karnata* and *Tuuava*, is called a *Cutty*; and the names of many places in both countries have this word for their termination. The tree here is named *Cavila-Cutty* from its standing in *Cavila*, a district that belonged formerly to the *Mular Rájá*. The representative of the family lives at *Bylangudy*, on the road between *Jamál-ábad* and *Subhramani*. Cavila-cutty.

In the last war this vicinity was plundered by the *Coorg Rájá*; and among others, the house of the *Jain* priest was destroyed. The *Raja* wished to replenish his dominions with inhabitants; many of his subjects having perished in his wars with *Tippoo*. From most villages he contented himself with levying a contribution of fourteen or fifteen persons; but he carried off a much larger proportion of the *Bráhmans*, from the *Agrarums*, or villages granted to them in charity. This did not proceed from any partiality that the *Raja* has for the sacred order, as he is supposed rather to be averse to the whole caste, and at any rate does not reverence them as his *Gurus*, for he is a *Sivabhaktar*. His severity, which the *Bráhmans* consider as worse than ordinary impiety, arose from their obstinacy. Relying on the sacred nature of their caste, the *Bráhmans* would come to no composition, and the *Coorg* officers carried away every one of them whom they could seize. In *Tulava* their loss will not be severely felt; for there the *Agrarum Bráhmans* possess none of the industry that distinguishes those of *Pali-ghat*, and in *Coorg* necessity will probably induce them to follow some useful employment. Depredations of the Coorg Raja.

In the temples of *Tulava* there prevails a very singular custom, which has given origin to a caste named *Moylar*. Any woman of the Singular customs of the Moylar.

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four pure castes, *Bráhmans*, *Kshatri*, *Vaisya*, or *Súdra*, who is tired of her husband, or who (being a widow, and consequently incapable of marriage,) is tired of a life of celibacy, goes to a temple, and eats some of the rice that is offered to the idol. She is then taken before the officers of government, who assemble some people of her caste to inquire into the cause of her resolution; and, if she be of the *Bráhman* caste, to give her an option, of living either in the temple or out of its precincts. If she choose the former, she gets a daily allowance of rice, and annually a piece of cloth. She must sweep the temple, fan the idol with a *Tibet* cow's tail (*Bos gruiens*), and confine her amours to the *Bráhmans*. In fact, she generally becomes a concubine to some officer of revenue, who gives her a trifle in addition to her public allowance, and who will flog her severely if she grant favours to any other person. The male children of these women are called *Moylar*, but are fond of assuming the title of *Stanika*, and wear the *Bráhmanical* thread. As many of them as can procure employment live about the temples, sweep the areas, sprinkle them with an infusion of cow-dung, carry flambeaus before the gods, and perform other similar low offices. The others are reduced to betake themselves to agriculture, or some honest employment. The daughters are partly brought up to live like their mothers, and the remainder are given in marriage to the *Stanikas*.

The *Bráhmany* women who do not choose to live in the temple, and the women of the three lower castes, cohabit with any man of pure descent that they please; but they must pay annually to the temple from one-sixteenth to half a *Pagoda*. Their children also are called *Moylar*; those descended from *Bráhmany* women can marry the daughters of the *Moylar* who live in the temples; but neither of them ever intermarry with persons descended from a woman of inferior caste. It is remarkable in this caste, where, from the corrupt example of their mothers, the chastity of the women might be considered as doubtful, that a man's children are his heirs; while in most other castes the custom of *Tuluva* requires a man's sister's children, by way of securing the succession in the family. The *Moylar* differ much in their customs, each endeavouring to follow those of the caste from which his mother derived her origin. Thus the descendants of a *Bráhmany* prostitute wear the thread, eat no animal food, drink no spirituous liquors, and make marks on their faces and bodies similar to those which are used by the sacred caste. They are not, however, permitted to read the *Vedas*, nor the eighteen *Puranas*. Indeed but very few of them learn to keep accompts, or to read songs written in the vulgar language. Contrary to the custom of the *Bráhmans*, a widow is permitted to marry. They burn the dead, and believe in the transmigration of souls, but seem to have very crude notions on this subject. They are, indeed, very ignorant of the doctrine of the *Bráhmans*, who utterly despise them, and will not act as their *Gurus* or give them *Upadesa*. They will attend, however,

at the ceremonies of the *Moylar*, and read the services proper on the occasion, and will accept from them both *Dhana* and *Dharma*. 1801. Feb. 1.

The *strata* of *Tulava*, near the sea-coast, resemble entirely those of *Malayala*, and consist of *Laterite* or *brickstone*, with a very few rocks of granite interspersed. This granite is covered with a dark black crust, and is totally free from veins of quartz, or of felspar. In many places large masses of the granite immersed in the *Laterite* are in a state of decay; the black mica has entirely disappeared, and the white felspar has crumbled into powder, leaving the quartz in angular masses. These sometimes form so large a share of the whole rock, that, after the decay of the other component parts of the granite, they firmly adhere. *Strata of Tulava.*

On arriving in the *Cavila* district, the granite shows itself more abundantly; and among that which, as usual, has no *strata*, I observed some disposed in *strata* running east and west, and which were truncated at the end, like much of that which is found above the *Ghats*. Even this was free from veins of quartz.

2nd *February*.—I went three *Sultany* cosses to *Bellata Angady*, or the white market; a place very improperly named, as it contains only one shop, and in that nothing but *Betel* is sold. The country is not so steep as that through which I came yesterday; but it contains much less rice-land, which is the only part of this country that is considered as of any value. I am persuaded, however, that for cotton or dry crops much of it might be cultivated by the plough; but the population at present is too small to admit of all the rice-land being cultivated; and, while that continues to be the case, it would be madness to attempt any other. On the hills many trees have now grown up; but it would appear, that formerly they had been all cleared; and to keep the bushes down, and to destroy vermin, the grass is still annually burned. To-day many buffaloes and sheep have passed, coming for sale from the dominions of *Mysore*; and many oxen have passed from the same quarter, laden with iron, cloth and grain. Feb. 2. Appearance of the country.

At no great distance from the shop near which I encamped, is a *Matam* belonging to the *Sivabhaktar*; and from thence a town formerly extended, almost two miles west, to a temple of the *Jain*. Midway is a ruinous fort, formerly the residence of the *Bungar Rajas*, to whom much of the neighbouring country belonged. The fort and city were destroyed by *Sivappa Nayaka*, the first prince of the house of *Ikeri* who established his power in *Tulava*. From this it is clear, that the petty *Jain Rajas* existed before the time of that conqueror; and so indeed do the people of this place say, in contradiction to the story which those of *Hosso-betta* told. The tradition here is, that the petty *Jain Rajas* existed long before the time of *Sivappa Nayaka*, and were entirely independent of each other. Under the *Ikeri Rajas* they paid no tax of any kind for their *Umblica* lands, or private estates. For at least a portion of these *Hyder* continued to allow an exemption from taxes; but the *Sultan* taxed *Bungar Rajas.*

1801. Feb. 2. their whole lands at the same rate as the rest of the province, and this tax they continue to pay. During the siege of *Seringapatam* the commandant of *Jamal-abad* hanged the *Bungar Raja*, as he was suspected of an inclination to favour the English. His children live at *Nandavanram*, south from *Buntwala*, and cultivate their lands in that neighbourhood.

Irrigation. On the river at *Bellata Angady* is a dam, which is rebuilt every year, at the commencement of the dry season, and is formed of piles, stones, and earth. It sends off a large stream of water, the whole of which is wasted on one small *Betel-nut* garden.

Feb. 3. Appearance of the country. 3d *February*.—I went a short journey to *Jamal-abad*, which originally was called *Narasingha Angady*. The country through which I passed to-day is almost entirely covered with wood; but much of it has a good soil, and might be watered by means of the small river which we twice crossed. The road is very good.

History of *Jamal-abad*, or *Narasingha Angady*. The tradition here is, that a *Bráhman* named *Nárasingha Raya*, the founder of a dynasty who governed the whole of *Tulava* immediately after that of *Myuru Varma* became extinct, built a town on the banks of the river here, and called it *Narasingha Angady* after his own name. Toward the foot of the rock, at present occupied by the fortress, he erected a citadel; and this was the residence of the family, of which I have found no traces in any other place. From the extinction of this family, which must have happened many ages ago, the place continued totally unoccupied, until *Tippoo* was returning in triumph, after the peace which he granted to the English at *Mangalore*. As he encamped where the town now stands, he observed the immense rock placed to the westward; and having sent two officers (*Hirkaras*) to survey it, he determined to build a fortress on its summit. Money was transmitted from the capital immediately on his arrival there, and the work having been completed, a number of people were collected and sent to inhabit the town, which was called *Jamal-abad*. The *Sultan* afterwards destroyed the fort at *Mangalore*, as being too accessible for Europeans, and made his new town the residence of an *Asoph*, who governed the province of *Canara*. In the fort was placed a *Khiladar*, or commandant, with a garrison of 400 men. In the town there were then about 1000 houses, and it enjoyed a considerable trade. On the late invasion of *Mysore*, the *Coorg Raja* destroyed the town, and carried away one half of its inhabitants. The remainder made their escape into the woods, and only about 20 houses have been rebuilt; for the former inhabitants, having been mostly collected by force from different places, when dispersed by the *Coorg Rájá*, returned to their native villages. The immense rock on which the fort stands is wholly inaccessible, except by one narrow way, and may be deemed impregnable. The nature of the access to it, however. renders the descent, in face of an enemy, nearly as difficult as the ascent; so that a very small body of men, with artillery, are adequate to blockade a strong garrison; which renders the place of

little use, except as a safeguard for treasure or records. After the fall of *Seringapatam*, a party of British troops summoned the place to surrender; and informed the commandant, that if he submitted immediately, the whole arrears of the garrison should be paid; but that no quarter would be given, should the garrison, by a useless resistance, occasion a wanton effusion of blood. The garrison, however, continued obstinate for about a month and a half, until some mortars were brought up. After three days' bombardment, the soldiers ran off, the commandant poisoned himself, and the principal officers who submitted to be taken were hanged. Some time afterwards, a person named *Timma Náyaka*, who had been a petty military officer at *Beacul*, and who, by promising to procure recruits for the *Bombay* army, had been admitted into the Company's service, persuaded about 204 of the recruits to desert, and with them went to join an insurgent of the name of *Suba Row*. This was a *Bráhman*, who had been a clerk (*Sarishtadár*) at *Coimbetore*; and who, with a view of raising a disturbance, had set up a pretended *Futty Hyder*. The man that pretended to be *Futty Hyder*, who is a natural son of the late *Sultan*, remained at a temple near *Bylangudy*, a town on the *Ghats* towards *Subrahmani*; while the *Bráhman* occupied a cave at no great distance, and detached *Timma Náyaka* with his recruits to surprise *Jamál-ábád*. In this they succeeded. A young officer had relieved the garrison, and was sleeping that night in a house at the foot of the rock, with all his men, except a native corporal's (*Náyaka's*) party, intending probably next day to march into the fort; but *Timma Náyaka* came upon them unawares, and put the whole party to death; after which he persuaded the corporal to give up the gate, and took possession without loss. While the neighbourhood was awed by their success, *Suba Row*, with his pretended *Futty Hyder*, descended from their hills, and plundered several villages. They then advanced to *Buntwala*, where they defeated the *Tahsildár*, who, to oppose their ravages, had collected some armed messengers (*Peons*). Elated with this advantage, they attacked a person called *Rájá Hegada* of *Dharmastulla*, whom they wounded at a place called *Potur*; but two of the neighbouring *Tahsildars*, having procured thirty regular *Sepoys*, soon came up, and immediately dispersed the rabble. The two leaders, however, made their escape to the mountains, where they are still skulking. A military force was sent from *Mangalore*, that a proper example might be made of *Timma Nayaka* and his party, and two attempts were in vain made by Europeans to take the fort by assault. The place was then blockaded for three months; when all the provisions having been exhausted, the people in the fort contrived to let themselves down the back of the rock by means of chains, ropes, blankets, and the like. They immediately dispersed; but many of them were secured by the country people, and hanged. For some time *Timma Nayaka* concealed himself in disguise; but at length he was recognised by an old friend, a *Nair*, at *Beacul*. This

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man, under pretence of cutting a *Bamboo*, borrowed *Timma's* sword, without seeming to know him, but addressing him as a stranger. No sooner had he disarmed his old acquaintance, than he rushed on him, and threatened him with instant death, unless he followed quietly. The culprit was thus delivered over to justice, and the *Nair* as a reward received 500 *Rupees*. The fellow has the impudence to complain of its insufficiency, and has persuaded some gentlemen to support his demands for more, by pretending that, in attacking so desperate a man, he has performed extraordinary deeds of valour. The fort, in order to prevent it from falling into the hands of ruffians, is now garrisoned; for, as I have said before, in a military point of view it is of little use.

Malayar, and their manner of cultivating the hills.

In this neighbourhood, the hills that are cultivated after the *Cotucadu* or *Cumri* manner are all private property. The *Mulucaras*, or proprietors, have alienated the whole right of cultivating them to a rude tribe, called *Malayar*, or *Malay-cudies*. The *Malayar*, who dwells on any hill of this kind, has the exclusive hereditary right of cultivating it; but, while not occupied by this labour, he and his family must work for the proprietor (*Mulucara*), at the allowance of provisions usually given to slaves. The *Malayar* may give up his possession when he pleases, which secures him from being ill-used by the proprietor; for such people on an estate add greatly to its value. They work for their master ten months in the year; but, having six or seven miles to come and go from their hills to their master's fields, they labour only six hours in the day. In this neighbourhood no tax is imposed on this kind of land; but in some districts the *Malayar* pay annually a small sum to government for each hill.

The following is the manner in which this sort of cultivation, called *Cumri*, is performed. In the beginning of the dry season, the *Malayar* cuts down all the trees and bushes from a certain space of ground, and before the rains set in he burns them. The ground is then dug with a sharp *Bamboo*, and sown with *Shamay* (*Panicum miliare*), *Ragy* (*Cynosurus Corocanus*), rice, and various cucurbitaceous plants. The grains are sown separately; but seeds of the cucurbitaceous fruits are mixed with all the farinaceous crops. With the *Ragy* are also mixed the seed of *Hibary* (*Cytisus Cajan*), and of *Abary* (*Dolichos Lablab*). Next year another piece of ground must be cleared, the former not being fit for cultivation in less than twelve years. In *Tulava*, this is the only kind of cultivation of dry grains, although much of the ground seems fit for the purpose; but the natives have a notion, that no high ground can produce any thing unless a great deal of timber has been burned on it.

Hills of *Tulava* considered as useless. Hay.

They therefore consider the greater part of the country as totally useless, except for pasture or hay, and very little of it produces the proper grass. One kind of grass only that is produced in *Tulava* is eatable; and when I proposed to the natives to destroy the bad kinds, and sow the seed of the good, they were filled with astonishment at what they considered as the extravagance of the project.

Where the hills are not too steep for the plough, I am persuaded 1801. Feb. 3.
that this might be done to great advantage; and the quantity of live stock and manure might be thus quadrupled. The hay at present is very bad, and sapless; for the grass, in its natural state, withers from maturity, before the rainy season is over; and before that period the hay could not be preserved. This, however, might be easily remedied, by cutting the grass while young, and allowing a second crop to come up, so as to be in juice at the commencement of the fair weather. The first crop would make good manure. This project the natives consider as equally extravagant with the former; nor indeed can it be expected, that in their circumstances they should attempt any innovation of the kind, until convinced, by an experiment made before their eyes, that it would succeed.

4th *February*.—I returned by the same road to the *Jain* temple Jan 4. Appearance of the country.
at *Bellata Angady*, and then turned towards the north, and came to *Padanguddy* in a district named *Majura*, which formerly belonged to the *Bungar Rajas*. The country through which I came from *Bellata Angady* is clear, and the road good; the hills being low, and of gentle declivity. The quantity of rice ground is inconsiderable, and by the way I saw hardly any gardens. Near the temple is a very fine reservoir, made, exactly like those above the *Ghats*, by building a mound of stone across the head of a narrow valley, which it supplies with water. The value of rice ground, from its small extent, seems not to have been a sufficient inducement with them to construct such a work; which was made, probably from ostentation, by a *Lingar Banijigar*, named *Luddi Guruvaia*.

5th *February*.—I went three cosses to *Sopina Angady*. From Feb. 5.
Padanguddy, to the banks of the northern branch of the *Mangulore* river at *Einuru*, the country is much like what I saw yesterday, but more woody. Between the river and *Sopina Angudy*, the hills are steeper, and consequently the road is very bad.

Einuru is a small town, containing eight temples belonging to *Jain*.
the *Jain*, and one to the *Siva Bráhmans*. The former have an annual allowance of 14 *Pagodas*, and the latter one of 10 *Pagodas*. As in this country the worshippers of *Jain* are more numerous than those of *Siva*, the temples of the former ought to have the best endowments; but while the native officers of government are mostly *Bráhmans*, pretences will never be wanting for depressing these heretical temples.

At *Einuru* is an immense colossal image of one of the gods worshipped by the *Jain*. It is formed of one solid piece of granite and stands in the open air.

Sopina Angady has only three shops; but the houses of the Tigers.
proprietors are very large, and the occupants seem to be in easy circumstances. Here is a *Jain* temple, with an excellent house for the priest (*Pújari*). The place was formerly much infested with tigers; but a year ago the inhabitants collected, and cleared away so much of the wood, that they now have no trouble from these animals.

1801. Feb. 5. They clear the country by cutting down the brush-wood, and burning it when it has dried. If this be repeated two or three years successfully, the large trees also decay. The country is afterwards preserved clear by annually burning the grass. A few bushes always spring up, but not more than is sufficient to supply the farmers with leaves for manure.

Feb. 6. Appearance of the country. 6th *February*.—I went two cosses to *Mudu*, or East *Biddery*, and by the way crossed a branch of the northern *Mangalore* river, which descends from the *Ghats*. On the way, two tigers were seen by some of my people. Although the country is well cleared, it contains very little rice ground; and, as the hills are considered as totally useless, this is in fact one of the poorest countries that I have ever seen.

Choutar Rajas. *Mudu Biddery* was formerly subject to the *Choutar Rajas*, and their descendants have still a house in the place. The tradition, as given me here by a *Bráhman* native officer, and apparently a well informed man, is, that the *Jain Rajas* of *Tulava* were independent of each other, and of all other powers, and were descended from the kings of *Vijaya-nagara* by *Jain* women. They derived their territories from their parents, as appanages free from all claims of tribute. I think it probable, that the *Bráhman* confounds the *Baylaya Rayas*, who were sovereigns of *Karnata*, and who were *Jain*, with the family who afterwards founded *Vijaya-nagara*, who governed the same dominions, and who were worshippers of *Vishnu*.

About 150 years ago, when under the *Choutar Rajas*, the place contained 18 *Busties* or temples of the *Jain*, and a throne occupied by one of the chief *Gurus* of this sect of *Bráhmans*. It also contained 6 *Gudies*, or temples belonging to the *Bráhmans* who follow the *Puranas*, and 700 houses, mostly occupied by *Bráhmans* of the two sects. At that time, a dissension happening between the *Rajas* of *Carculla* and *Choutar*, the *Siva-Bhaktar* were called in, and subjected the country in the name of the kings of *Vijaya-nagara*; but in fact it continued subject to the princes of *Ikeri*, until these were overthrown by *Hyder*. Ever since the overthrow of the *Choutar*, the place has been on the decline, and the allowances formerly granted to the *Guru* have been stopped. The temples still, however, continued to enjoy their land; and in the government of *Hyder*, those of the *Jain* had possessions to the amount of 360 *Pagodas* a year. These were entirely resumed by *Tippoo*, who gave, in place of them, an annual pension of 90 *Pagodas*; but he destroyed most of the *Bráhmans'* houses, and now the whole place contains only a hundred families. Major Monro increased the pension of the *Jain* temples to 207 *Pagodas*; but Mr. Ravenshaw has reduced it to what *Tippoo* allowed, and it is to be collected in the same manner, that is to say, by a small tax levied on the farmers. As this is to be done by officers who abhor the *Jain* as detestable heretics, very little of the pension will reach their hands. The free lands formerly occupied by the *Jain* have been totally resumed, and they have not been

allowed to cultivate it on payment of the land-tax, as all the other **1801. Feb. 6.** persons holding land of this kind have been permitted to do. This is owing to the ill-will of those *Bráhmans* who act as revenue officers.

Account of the *Jain*, or *Arhita* sect. Having invited *Pandita Acharya Swami*, the *Guru* of the *Jain*, to visit me, he came, attended by his most intelligent disciples, and gave me the following account of his sect.

The proper name of the sect is *Arhita* (*worthy*); and they acknowledge, that they are one of the twenty-one sects who were considered by *Sankara Acharya* as heretical. Like other *Hindus*, they are divided into *Bráhman*, *Kshatri*, *Vaisya*, and *Súdra*. These castes cannot intermarry; but, provided she be of pure descent, a man of a high caste is not disgraced by having connection with a woman of inferior birth. A similar indulgence is not granted to the women of the higher castes. The men are allowed a plurality of wives, which they must marry before the age of puberty. The man and woman must not be of the same family in the male line. Widows ought not to burn themselves with the bodies of their husbands; but it is those of the *Súdras* only that are permitted to take a second husband. The *Bráhmans* and *Vaisyas* in *Tulava*, and every caste above the *Ghats*, consider their own children as their heirs; but the *Rajas* and *Súdras* of *Tulava*, being possessors of land, follow the custom of the country, and their sisters' children are their heirs. Even the *Sudras* are not permitted to eat animal food, nor to drink spirituous liquors; nor, except for the *Kshatriyas* when engaged in war, is it lawful for any one to kill an animal. They all burn the dead.

Opinions of the *Jain*, or *Arhita* tribes. The *Védas*, and the eighteen *Puranas* of the other *Bráhmans*, the *Arhita* reject as heretical. They say, that these books were composed by a saint (*Rishi*) named *Vyasa*, whom the other *Bráhmans* consider as an incarnation of the deity. The chief book of which the doctrine is followed by the *Arhita* is named *Yoga*. It is written in the *Sanskrit* language, and character of *Karnata*, and is explained by 24 *Puranas*, all written by its author, who was named *Vrishava Sayana*, a saint (*Rishi*), who by long continued prayer had obtained a knowledge of divine things. They admit that all *Bráhmans* are by birth of equal rank, and are willing to show their books to the *Bráhmans* who heretically follow the doctrine of the *Védas*; but they will not allow any of the lower classes to inspect their sacred writings.

The gods of the *Arhita* are the spirits of perfect men, who, owing to their great virtue, have become exempt from all change and misfortune, and are all of equal rank and power. They are collectively called by various titles; such as *Jinéswara*, (the lord *Jina*), *Arhita* (the worthy), and *Siddha* (the holy); but each is called by a particular name, or names, for many of them have above 1000 appellations. These *Siddha* reside in a heaven called *Moksha*; and it is by their worship only, that future happiness can be obtained. The first person who by his virtue arrived at this elevated station

1801. Feb. 6. was *Adi Paraméswara* (the first supreme being); and by worshipping him, the favour of all the *Siddha* may be procured. He has 1008 names, the most common of which among his adorers is *Jineswara*, the god *Jina*.

The servants of the *Siddha* are *Devatas*, or the spirits of good and great men, who, although not so perfect as to obtain an exemption from all future change, yet live in an inferior heaven called *Swargam*; where for a certain length of time they enjoy great power and happiness, according to the merit of the good works which they performed when living as men. *Swargam* is situated higher in the regions of the air than the summit of *Mount Meru* (the north pole); and men ought to worship its inhabitants, as they possess the power of bestowing temporal blessings. Concerning the great gods of the eighteen *Puranas* and *Vedas*, the *Arhita* say, that *Vishnu* was a *Raja* who, having performed certain good works, was again born a *Raja* named *Rama*. At first, he was a great hero and conqueror; but afterwards he retired from the pleasures of the world, became a *Sannyasi*, and lived a life of such purity that he obtained *Siddha* under the name of *Jina*, which he had assumed when he gave up his earthly kingdom. *Maheswara*, or *Siva*, and *Bráhma* are at present *Devatas*; but are inferior in rank and power to *Indra*, who is the chief of all the happy beings that reside in *Swargam*. In this heaven are sixteen stages, containing so many different kinds of *Devatas*, who live in a degree of bliss in proportion to their elevation. An inferior kind of *Devatas*, called *Ventaru*, live on mount *Meru*; but their power and happiness are greatly inferior to those of the *Devatas* of *Swargam*. *Marima*, *Putalima*, and the other *Saktis*, are *Ventarus* living on *Maha Meru*; but they are of a malevolent disposition.

Below *Maha Meru* and the earth, is situated *Bhuvana*, or hell, the residence of the spirits of wicked men. These are called *Rakshas* and *Asuras*; and, although endowed with great power, they are miserable. *Bhuvana* is divided into ten places of punishment, which are severe in proportion to the crimes of their respective inhabitants.

The heaven and earth in general, including *Maha Meru*, and *Bhuvana*, are supposed never to have been created, and to be eternal; but this portion (*Khanda*) of the earth called *Arya*, or *Bharata*, is liable to destruction and re-production. It is destroyed by a poisonous wind that kills every thing; after which a shower of fire consumes the whole *Khanda*. It is again restored by a shower of butter (*Ghee*), followed by one of milk, and that by one of the juice of sugar-cane. Men and animals then come from the other five portions (*Khanda*) of the earth, and inhabit the new *Arya* or *Bharata-khanda*. The books of the *Arhita* mention many *Dwipas*, islands or continents, surrounding *Maha Meru*, of which the one that we inhabit is called *Jambu-dwipa*. People, from this, can go as far as *Manushotra*, a mountain in *Pushkarara-dwipa*, between which

and *Jambu-dwipa* are two seas, and an island named *Daticy-shunda*. *Jambu-dwipa* is divided into six *Khandas*, and not into nine, as is done by the *Bráhmans* who follow the *Vedas*. The inhabitants of five of these portions are called *Mlechas*, or barbarians. *Arya* or *Bharata* is divided into 56 *Desas*, or nations, as is done by the other *Bráhmans*. As *Arabia* and *China* are two of these nations, *Arya* would seem to include all the world that was tolerably known to the *Arhita* who composed the books of this sect.

Every animal, from *Indra* down to the meanest insect, or the most wicked *Raksha*, has existed from all eternity; and, according to the nature of its actions, will continue to undergo changes from a higher to a lower rank, or from a lower to a higher dignity, until at length it becomes perfect, and obtains a place among the *Siddha*. Before a *Sudra* can hope for this exemption from evil, he must be born as one of the three higher castes; but, in order to become a *Bráhman*, it is not necessary that he should be purified by being born of a cow, as many of the followers of *Vyasa* pretend. The *Arhita* however allow, that to kill an animal of the cow kind is equally sinful as the murder of the human species. The death of any other animal, although a crime, is not of so atrocious a nature. The *Arhita*, of course, never offer sacrifices, but worship the gods and *Devatas* by prayer, and offerings of flowers, fruits and incense.

The *Saugata* and *Jaina* not the same sect.

By the *Brahmans* who follow the doctrine of *Vyasa*, the *Arhita* are frequently confounded with the *Saugata*, or worshippers of *Buddha*; but this arises from ignorance. So far are the *Arhita* from acknowledging *Buddha* as their teacher, that they do not think that he is even a *Devata*; but allege, that, as a punishment for his errors, he is undergoing various low metamorphoses. Their doctrine however, it must be observed, has in many points a strong resemblance to that which is taught in *Ava* by the followers of *Buddha*.

The *Jain Bráhmans* abstain from lay affairs, and dress like those who follow the doctrine of *Vyasa*. They have *Gurus*, who are all *Sannyasis*; that is to say, have relinquished the world, and all carnal pleasures. These *Gurus* in general acknowledge as their superior, the one who lives at *Sravana Belgula*, near *Seringapatam*; but *Panhita Acharya Swami* pretends to be at least his equal. In each *Matam*, or convent, there is only one *Sonnyasi*, who, when death approaches, gives the proper *Upadesa* to one of his followers, who must relinquish the world and all its enjoyments, except perhaps an indulgence in the pride of devotion. The office is not confined to the *Bráhmans*; none but the *Sudras* are excluded from this highest of dignities; for all the *Sannyasis*, after death, are supposed to become *Siddha*, and of course do not worship the *Devatas*, who are greatly their inferiors. The *Sannyasis* never shave, but pull out all their hair by the roots. They never wear a turban, and are allowed to eat and drink but once a day. In fact, they are very abstemious; and the old *Swami*, who, from his infirmities, expected daily to become a god, mortified the flesh exceedingly. The *Gurus* have the power

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of fining all their followers who cheat or lie, or who commit murder and adultery. The fines are given to the gods, that is, to his priest (*Pujari*). These *Gurus* excommunicate all those who eat animal food, or fornicate with persons that are not *Jain*; which, of course, are looked upon as greater crimes than those which are only punished by fine. The married *Bráhmans* act as *Pujaris* for the gods, and as *Purohitas* for the inferior castes. The follower may choose for his *Purohita* any *Bráhman* that he pleases. The *Bráhman* receives *Dhana*, and on this occasion reads prayers (*Mantrams*); as he does also at the marriages, funerals, and commemorations of the deceased ancestors of his followers.

The *Jain* extend throughout *India*; but at present, except in *Tulava*, they are not any where numerous. They allege, that formerly they extended over the whole of *Arya* or *Bharata-khanda*; and that all those who ever had any just pretensions to be of *Kshatri* descent, were of their sect. It, no doubt, appears clear, that, until the time of *Ráma Anuja Acharya* many powerful princes in the south of *India* were their followers. They say, that formerly they were very numerous in *Arabia*; but that about 2500 years ago a terrible persecution took place at *Mecca*, by order of a king named *Parsua Battáraka*, which forced great numbers to come to this country. Their ideas of history and chronology, however, as usual with *Bráhmans*, are so very confused, that they suppose *Parsua Battáraka* to have been the founder of the Mussulman faith. None of them have the smallest trace of the *Arabian* features, but are in every respect complete *Hindus*.

Feb. 7. Appearance of the country.

7th *February*.—I went three cosses to *Carculla*. The first part of the road led through a tolerably level country; but, as usual, nothing more was cultivated than low places, which wind through among the swelling lands, and are very narrow. The higher part, which is bare, seems to be capable of cultivation for cotton or dry grains. Nearer *Carculla* the hills are steep and rocky, and some of them are overgrown with trees. The road is wide, and has a fine row of trees on each side. In this part of the country are many traces of inclosures; and it is said, that formerly there were here several villages, which have been deserted ever since *Hyder* raised the taxes.

Byrasu Wodears, and the *Jain Rajás*.

Carculla is an open town, containing about 200 houses, which mostly belong to shopkeepers. Near it are the ruins of the palace of the *Byrasu Wodears*, the most powerful of the *Jáin Rajas* of *Tulava*. The *Jain*, who are the chief inhabitants of the place, do not pretend that their prince had any authority over the *Rajas* of the south; the whole tradition, therefore, at *Hosso-betta* seems to be erroneous. That place, however, may have belonged to the *Byrasu Wodears*; as the territories of the *Rajas* of *Tulava* were probably as much intermixed as those of the chiefs of *Malayala*. The revenues of this family, it is said, amounted to 17,000 *Pagodas*, or 6850*l*. 4*s*. 7½*d*.

Doctrines of the *Jain*, and their history.

The *Jain* altogether deny the creation of *Tulava* by *Parasu Rama*, or any gift of it made by that personage to the *Bráhmans*.

Fig 65.

Fig 66.

Image at Carcalla in Canara

C PACZENSKY LITH

From a book called *Amonoro Charitra,* which gives an account of *Jenadutta Raya,* the ancestor of the *Byrasu Wodears,* they say that he was born at *Uttara Madura* (the *Mutra* of Major Rennell), near the *Jamuna* river. He was of the family of the sun; and, having incurred the displeasure of the *Raja* his father, in order to avoid being put to death, was obliged to fly. Having come to a village near *Nagara,* he founded a city named *Hombucha,* and soon after conquered a place called *Culisha.* He afterwards descended to *Sisila,* near *Subhramani,* and finally established himself at *Carculla.* His son was the first *Byrasu Wodear,* and all his descendants assumed that title. The book gives no account of the time when these events happened, nor of the princes who were previously in the country. In one of the temples here there is an inscription on stone, in the language and old character of *Karnata,* of which a copy in the modern character has been delivered to the government of Bengal (MSS. Inscriptions No. 1.) From this it would appear, that *the protected by Padmawati* (a title by which, it is well known, *Jaendutta* is meant) reigned at *Carculla* in the year of *Salivahanam* 1256 (*A. D.* 133$\frac{3}{4}$). From this it would seem probable, that in the beginning of the fourteenth century a *Raja* of the *Jain* religion governed *Matra,* now one of the chief seats of the followers of the *Vedas.* The latest inscription here belonging to this family is on a colossal image. A copy (No. 2), in the old character, has been also delivered to the Bengal government. It is dated in the year of *Salivahanam* 1353 (*A. D.* 1431). The family were overthrown by *Sivappa Nayaka* of *Ikeri,* and have since become extinct. The tradition is, that before the arrival of *Jenadutta* there were many *Rajas* of the *Kshatri* caste, and who, of course, according to the *Jain,* were of their religion. These, they say, were all tributaries, or *Polygars,* under the kings of *Vijaya-nagara.* These *Jain* say, that the *Tulava Bráhmans* who follow the *Vedas* were first introduced by *Myuru Varma,* who was a *Jain* prince that lived about a thousand years ago at *Barcuru,* and governed all *Tulava* without any superior; but of this prince the *Jain* have no written account.

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Among the *Jain* there are two kinds of temples; one covered with a roof, and called *Busty*; the other an open area, surrounded by a wall, and called *Betta,* which signifies a hill. The temples of *Siva* and *Vishnu,* the great gods of the followers of the *Vedas,* are here called *Gudies.* In the *Busties* are worshipped the images of 24 persons, who have obtained *Siddharu,* or become gods. These images are all naked, and exactly of the same form; but they are called by different names, according to the *Siddháru* which they are designed to represent. These idols are in the form of a man sitting. In the temples called *Betta* the only image of a *Siddha* is that of a person called *Gomuta Raya,* who while on earth was a powerful king. The images of *Gomuta Raya* are naked, and always of a colossal size. That here, of which two views are given (Plate XXIII. Figs. 65,66), is made of one piece of granite, the extreme dimensions of which,

1801. Feb. 7. above ground, are 38 feet in height, 10⅓ feet in breadth, and 10 feet in thickness. How much is below ground I cannot say; but it is probably sunk at least three feet, as it has no lateral support. According to an inscription on the stone itself, it was made by *Vira Pandia*, son of *Bhairava-Indra*, 369 years ago. A copy of this inscription has been delivered to the government of Bengal.

The *Jain* deny the creation of man, as well as of the world. They allow, that *Bráhma* was the son of a king, and that he is a *Devata*, and the favourite servant of *Gomuta Raya*; but they altogether deny his creative power. *Bráhma* and the other *Devatas* are worshipped, as I have said, by the *Jain*, who have not become *Sannyasis*; but all the images of these supposed beings that are to be found in the great temples of the *Jain* (*Busties*, or *Bettas*), are represented in a posture of adoration, as worshipping the *Siddha* to whom the temple is dedicated. These images, however, of the *Devatas* are not objects of worship, but merely ornamental; and the deity has not been induced to reside in the stone by the powerful invocations of a *Bráhman*. When a *Jain* wishes to adore one of these inferior spirits, he goes to the temple that is dedicated to its peculiar worship. *Jain* or *Rama* is never represented by an idol in a temple of the kind called *Busty*, although he is acknowledged to be a *Siddha*; and although *Ganesa* and *Hanumanta* are acknowledged to be *Devatas*, these favourites of the followers of *Vyasa* have no images in the temples of the *Arhita*.

The *Jain* have no tradition concerning a great deluge that destroyed a large proportion of the inhabitants of the earth; but they believe, that occasionally most of the people of *Arya* are destroyed by a shower of fire. Some have always escaped to the other portions of the earth, and have returned to repeople their native country, after it has been renovated by showers of butter, milk and of the juice of the sugar-cane. The accounts of the world, and of the various changes which the *Jain* suppose it to have undergone, are contained in a book called *Loka Swarupa*. An account of *Gomuta Raya* is given in a book called *Gomuta Raya Charitra*. The *Camunda Raya Purana* contains a history of the 24 *Siddharu* which are worshipped in the temples called *Busties*. These books may be read by any person; and the *Jain* of *Carculla* entered into an agreement with me to copy them for my use. I paid them the price, but I have not yet received the books.

Feb. 8. 8th *February*.—I remained at *Carculla* in order to investigate some matters relative to agriculture.

Divisions of rice ground. Here the distinctions of rice ground differ somewhat from those in the south. *Bylu* is that which receives from rivulets a supply of water sufficient to ensure two crops. *Majelu* has one crop ensured by the same means. Small reservoirs, in case of a scarcity of rain, secure one crop from *Betta* land. *Bana Betta* is that which depends on the rains alone; so that, if these give over early, the crop is entirely lost. *Potla* is land overflowed by rivers. The sprouted seed

is here by far the most common cultivation in both crops, and in all soils, except in some called *Nunjinay Gudday*, in which worms abound. In this the seed is sown broad-cast without preparation. Scarcely any rice is here transplanted, and sprouted seed is sown even on *Potla* land. The quantity of seed required for the same extent of ground, of whatever kind, is nearly the same; only *Bylu* land requires a little more, as part of the seed is choaked by sinking too deep in the mud. This is directly contrary to the assertion of the people at *Mangalore*; but the farmers here say, that the information given at that place was correct; and that near the sea the *Bylu* land requires the least seed, while in inland places it requires more than the *Majelu* or *Betta*. 1801. Feb. 8.

If the rains continue late, a crop of pulse or *Sesamum* may be procured from both kinds of *Betta* land; but, if the dry weather commences early, they can only be obtained from *Majelu*, the others being too dry. On the *Majelu* land here a very small quantity of sugar-cane is raised; but the whole of this is of very small extent. At the head of a *Bylu* field here, there is a large reservoir; but very little use is made of its water, at least for the purpose of agriculture. The people say, that they do not make reservoirs, because the rains are so heavy that they would break the mounds, and that the soil soaks up the water so fast, that, very soon after the rainy season is over, they would become dry. The farmers of *Carculla* seem to be an obstinate and ignorant set of men.

Betel gardens.

The *Betel-leaf* is raised on the *Areca*, and this is planted in separate gardens. It does not injure the produce of the tree. These gardens are made both on the low grounds, and on hills where there is a command of water. They are allowed much manure; but, if on hilly ground, require no red earth. They are always watered, as at *Mangalore*; their cultivation must be therefore much more expensive than in *Malabar*, where they are only watered when young. All the gardens belong to the landlords, who occasionally mortgage them, but very rarely let them out for rent. The revenue, although nominally raised by so much a tree, has nothing to do with the actual number. It is levied by an old valuation; in making of which three trees were called one; and, if double the original number has been planted, no additional tax is paid. A thousand nominal trees on good land were rated at so much, and those on worse soils are rated lower in proportion.

Turmeric and ginger.

In the *Hitelu*, or back-yard of the house, are cultivated turmeric, ginger, *Capsicum*, greens, roots, and other things called *Tarkari*. The quantity of turmeric and ginger raised in the neighbourhood is considerable. The soil proper for these plants is *Betta* land which is free from stones. Between the 24th of May and the 22nd of June the ground is ploughed four times, and smoothed with a hoe. The whole is then divided by trenches, one cubit wide, half a cubit deep, and one cubit distant; and the earth which is taken from the trenches s thrown on the ridges. Then bits of the roots, each containing an

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eye, are planted in the ridges at half a cubit's distance from each other. These are then covered with *Casmra Sopu,* or the small branches and leaves of the *Strychnos Nux vomica,* which is the most common tree on the hills of *Tulava.* At the end of a month, the leaves having rotted, the small sticks are removed. Dung is then put over the plants, and a little more earth is thrown up from the trenches. In the month preceding the winter solstice, the roots are fit for taking up. The large roots, containing eyes, are kept for seed; and, being tied up in a straw bag, are hung upon a tree until the next season for planting. The smaller roots are fit for sale. The turmeric and ginger are cultivated exactly in the same manner. The roots of the turmeric intended for sale are boiled for twelve hours, and afterwards dried fifteen days in the sun.

Betel-nut reared in large quantities by *Brahmans.*

About 250 years ago a *Marattah Bráhman* came here, and observed that many hills were quite waste, which might be cultivated for *Betel-nut* by making reservoirs at the head of a valley; so that the water might be preserved, and distributed upon the sides of the hills. He applied to *Byrasu Wodear,* then sovereign of the country, for some of these hills; and having obtained a grant of them, he began his plantations with great success. By degrees this man's descendants increased to fifty families; and these were joined by many of the same sect and country, who all betook themselves to this kind of cultivation; so that between *Subhramani* and *Gaukarna* they amounted to seven hundred families. In their plantations *Betel-nut* was the great article; but they also contained many coconut palms, and some black pepper, and *Mango* and *Jack* trees. Each of the last produces from two to three hundred fruit; and these are so little in demand, that they are given to the cattle. They are not palatable to the ox; but at the season in which they ripen, any thing will be devoured, as the cattle are then starving. The prohibition against exporting *Betel-nut* by sea, which the late *Sultan* issued, reduced the price so much, that many of the plantations were allowed to go to ruin; and the number of *Bráhmans* was reduced to four hundred families. The markets being now open, and a brisk trade carried on between the coast and *Madras,* and *Goa,* which are the principal markets for the nut, the *Bráhmans* are with great spirit returning to this subject of industry. The influence of *Mousa* and his *Moplays* does not extend this length. The principal merchant is *Murtur Sangaia,* a *Banijigar,* who lives at *Hara-punyahully,* but has factories in every part of the peninsula.

Weather in *Tulava.*

The most judicious old men that I could find here gave me the following account of the weather. Between the 13th of March and the 13th of May they have slight showers, lasting three or four hours a day. These come three or four days successively, with equal intervals of dry weather, and accompany easterly winds. In the first month the winds night and day are easterly; in the latter part of this time the winds are from the southward, and in the west there is much thunder. Between the 14th of May and the 16th of

August there come from the west strong winds, and heavy rains. 1801.
The land winds are not at all perceptible. Between the 17th of Feb. 8.
August and the 15th of October there are gentle showers from the eastward. Except when it rains, the winds are westerly. From the 16th of October to the 13th of November there are slight showers from the eastward. The rain is sometimes, however, so heavy as to injure the crops. Except when it rains, the winds are variable. In the four following months there is no rain, and the air is reckoned cold by the natives. At present, the days are hot and the nights cool. The winds in the day come from the sea, and in the night from the land.

Feb. 9.

Appearance of the country.

9th *February*.—I went three cosses to *Beiluru*, a place where there were a few houses of cultivators, but no shops nor market. There is a small temple of *Siva* there, with an annual allowance to the *Pujári* of six *Pagodas*. The country is rather woody, and little rice ground can be seen from the road. The granite rocks make a conspicuous figure on the high lands.

Obstinacy of the guides.

Although the guides were natives of the place, and the road was well marked, yet they contrived to make a part of my baggage wander about from four in the morning, until two in the afternoon. Occasionally I meet with such accidents; from what other principle but obstinacy in the guides, I cannot say. This place is in the district of *Barcuru*, which formerly gave a title to one of the *Jain Rajas* of *Tulava*.

Feb. 10.

Hills capable of cultivation.

10th *February*.—I went three cosses to *Harygadika*. The country is similar to that through which I came yesterday. The farmers here say, that all the hills, wherever the soil is free from rock, might be converted into *Betta-land*. The quantity of such grounds, they say, is very considerable; at least three times as much as is cultivated; but, they add, the expense is great, and the returns are small. About a fourth part of what was formerly cultivated is now waste, for want of people and stock. Until that be fully occupied, no experiments on new land would be proper. The people say, that they would be willing to bring this new land into cultivation on the following conditions. The whole expense attending the various operations being collected into a sum, they should pay no revenue to government until that was reimbursed by the usual amount of the land-tax, which is from one to three *Sultany Fanams* for a *Moray* sowing, or from rather more than 6½*d*. to almost 1*s*. 11*d*. an acre.

Tenures, produce, and rent, of rice-land.

The proprietors here say, that they let their rice lands to tenants (*Gaynicaras*), and are obliged to advance stock to a new man. In the course of four years the value of the stock is repaid by instalments. The rent is paid in rice, so much for each *Moray* sowing. The best *Bylu-land* pays 4 *Morays* of rice for both crops; the next in quality pays 3 *Morays*; and the worst 2. The best *Majelu* pays 2½ *Morays*; the second quality 1½; and the third 1 *Moray*. The best *Betta* land pays 2 *Morays*; the second 1½;

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the third 1; and the fourth ½ a *Moray*. The *Moray* of rice, if of the coarsest quality, is at present worth 2*s*. 8¼*d*.; and each *Moray* of rent, for a *Moray's* sowing, is at the rate of about 2*s*. 4½*d*. an acre. The tenant, according to these people's account, has about one half of the produce; which therefore, in the worst *Betta* land, must be three seeds, or $3\frac{626}{1000}$ bushels an acre. These people say, that when the rice is cheap the whole rent is not equal to the land-tax. At present, they acknowledge that they have a little profit.* Taking the statement which they give as fair, their present profit will be evident, even allowing their whole rice to be of the coarsest kind. The worst *Betta* land pays 6½*d*. tax an acre, and the rent is 1*s*. 2½*d*.; so that the tax does not amount to half the rent; and I am inclined to think, that the average price of all the kinds of rice is never lower than the present value of the coarsest.

Haryadika.

At *Haryadika* there is only one shop; and on the approach of my people the owner ran away. There is a large temple of one of the *Saktis*; this is attended by one of the *Tulava Bráhmans* as *Pújari*, on which account no bloody sacrifices are performed. There was formerly a *Jain* temple here of the kind called *Busty*, but it has gone to ruin, and the number of the *Jain* is daily diminishing. The image in the temple was of copper. With many other similar idols from different parts of the country, it was carried to *Jamal-abad*. By orders from the late *Sultan*, some of them were converted into money, and others cast into guns.

Feb. 11. Appearance of the country.

11th *February*.—In the morning I went three cosses to *Udipu*. The country, to the vicinity of this place, is similar to that which I passed through on the two preceding days. The *strata* of granite, however, are mostly covered by the *Laterite*. The roads are execrable; but, like many of those in *Canara*, are shaded by fine rows of trees, especially of the *Vateria indica*; which, being now in full blossom, makes the most beautiful avenues that I have ever seen.

On getting within sight of the sea near *Udipu*, the country becomes more level; and round the town it is finely cultivated, and the rice fields are beautifully intermixed with palm gardens. Such a delightful situation has been chosen as the chief seat of the *Tulava Bráhmans* of the *Madual* sect.

Madual Bráhmans of Tulava, Panch Dravida, or five Dravidas.

Having assembled the men who, among the followers of *Madua Acharya* in *Tulava*, were reckoned the most eminent for their knowledge, they gave me the following information. The *Tulava Bráhmans* belong to the *Panch Dravida* division of the sacred tribe, and are a mixture composed of emigrants from each of the nations or tongues that compose this division. These are, *Andray*, or the nations speaking the *Telinga*, or *Andray* language, which occupy the north-eastern parts of the peninsula; *Karnataca*, those who speak the language which we call *Canarese*, and who inhabit the country south from the *Krishna* river, and above the *Ghat* mountains; *Maharashtra*, who speak the *Marattah* language, and occupy the north-western parts of the peninsula; *Gurjara* or *Carjura*, or the *Bráh-*

mans of *Guzerat,* who also have a peculiar dialect, very different from the language of the *Marattahs*; and *Dravida*, or those who speak the *Tamul* language, and occupy the southern parts of the peninsula below the *Ghats*. *Dravida* proper, or the *Desam* so called, is confined to the country between *Madras* and the mountains; but the name is extended, first to all the country occupied by people who speak the *Tamul* language, and then to the whole of the *Bráhmans* of this division. Although the whole of the *Tulava Bráhmans* form a kind of separate nation, yet each subdivision confines its marriages to its own original nation; and, contrary to the custom of the *Namburis*, a *Karnataca Tulava Bráhman* has no objection to marry the daughter of a *Bráhman* of *Karnata* who never has left his own country. 1801. Feb. 11.

They allege, that originally they were assembled here from all their native countries by *Parasu Rama*, who created *Tulava* for their use, in the same manner as he created *Malayala* for the *Namburis*. The language of *Tulava* has a strong resemblance to that of *Malayala*, and the written characters are the same; but in the language of *Tulava* there is a very great admixture of words from all the countries containing the five southern nations of India. *Origin of the Tulava Bráhmans.*

Originally, the *Tulava Bráhmans* were followers of *Batta Acharya*, who flourished at *Ahichaytra*, on the banks of the *Godavery*. An account of his life, which they of course consider as prophetical, is to be found in the *Skandha Purana*, one of the eighteen books written by *Vyasa*. *Batta Acharya* had great success against 18 of the 21 heretical sects, some of which admitted, and others denied, the authority of the *Vedas*. *Batta Acharya.*

Afterwards *Sankara Acharya* disputed with the followers of *Batta*, and, having convicted them of numerous errors, gained many proselytes; and many of the *Tulava Bráhmans* continue to follow his doctrines, and receive the *Sringa-giri Swamulu* as their *Guru*, and as the successor of *Sankara Acharya*. In this *Yugam*, or age, there have been three appearances of *Sankara Acharya*. First, he was born at *Sivuli*, in *Tulava*, about 150 years ago, and established the *Matam* or college at *Sringa-giri*. His next appearance was some hundreds of years afterwards; when he was born in *Malayala*, and lived at *Sri Rangam* near *Trichinopoly*. Lastly, he was born about 600 years ago at *Paducachaytra*, in *Tulava*. In the *Skandha Purana* composed, as my informants imagine, many myriads of millions of years ago, an account of all his transactions in these three incarnations is to be found, and also an account of the great success which he had against the heretical sects. *Sankara Acharya.*

Madua Acharya was last born at *Paducachaytra*, in the year of this *Kali-yugam* 4300, or 601 years ago. In the time of the five sons of *Pandu*, he had appeared as one of these brothers, named *Bima*; in the time of *Rama* he had been *Hanumanta*; and in the *Kali-yugam* preceding this (for the *Bráhmans* suppose a constant succession of the four *Yugams*) he had appeared as the *Madua Acharya* *Madua*

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the third 1; and the fourth $\frac{1}{2}$ a *Moray*. The *Moray* of rice, if of the coarsest quality, is at present worth 2*s.* $8\frac{1}{4}$*d.*; and each *Moray* of rent, for a *Moray's* sowing, is at the rate of about 2*s.* $4\frac{1}{2}$*d.* an acre. The tenant, according to these people's account, has about one half of the produce; which therefore, in the worst *Betta* land, must be three seeds, or $3\frac{626}{1000}$ bushels an acre. These people say, that when the rice is cheap the whole rent is not equal to the land-tax. At present, they acknowledge that they have a little profit. Taking the statement which they give as fair, their present profit will be evident, even allowing their whole rice to be of the coarsest kind. The worst *Betta* land pays $6\frac{1}{2}$*d.* tax an acre, and the rent is 1*s.* $2\frac{1}{2}$*d.*; so that the tax does not amount to half the rent; and I am inclined to think, that the average price of all the kinds of rice is never lower than the present value of the coarsest.

Haryadika.

At *Haryadika* there is only one shop; and on the approach of my people the owner ran away. There is a large temple of one of the *Saktis*; this is attended by one of the *Tulava Bráhmans* as *Pújari*, on which account no bloody sacrifices are performed. There was formerly a *Jain* temple here of the kind called *Busty*, but it has gone to ruin, and the number of the *Jain* is daily diminishing. The image in the temple was of copper. With many other similar idols from different parts of the country, it was carried to *Jamal-abad.* By orders from the late *Sultan*, some of them were converted into money, and others cast into guns.

Feb. 11. Appearance of the country.

11th *February*.—In the morning I went three cosses to *Udipu.* The country, to the vicinity of this place, is similar to that which I passed through on the two preceding days. The *strata* of granite, however, are mostly covered by the *Laterite.* The roads are execrable; but, like many of those in *Canara,* are shaded by fine rows of trees, especially of the *Vateria indica*; which, being now in full blossom, makes the most beautiful avenues that I have ever seen.

On getting within sight of the sea near *Udipu,* the country becomes more level; and round the town it is finely cultivated, and the rice fields are beautifully intermixed with palm gardens. Such a delightful situation has been chosen as the chief seat of the *Tulava Bráhmans* of the *Madual* sect.

Madual Bráhmans of Tulava, Panch Dravida, or five Dravidas.

Having assembled the men who, among the followers of *Madua Acharya* in *Tulava,* were reckoned the most eminent for their knowledge, they gave me the following information. The *Tulava Bráhmans* belong to the *Panch Dravida* division of the sacred tribe, and are a mixture composed of emigrants from each of the nations or tongues that compose this division. These are, *Andray,* or the nations speaking the *Telinga,* or *Andray* language, which occupy the north-eastern parts of the peninsula; *Karnataca,* those who speak the language which we call *Canarese,* and who inhabit the country south from the *Krishna* river, and above the *Ghat* mountains; *Maharashtra,* who speak the *Marattah* language, and occupy the north-western parts of the peninsula; *Gurjara* or *Carjura,* or the *Bráh-*

mans of *Guzerat*, who also have a peculiar dialect, very different from the language of the *Marattahs*; and *Dravida*, or those who speak the *Tamul* language, and occupy the southern parts of the peninsula below the *Ghats*. *Dravida* proper, or the *Desam* so called, is confined to the country between *Madras* and the mountains; but the name is extended, first to all the country occupied by people who speak the *Tamul* language, and then to the whole of the *Bráhmans* of this division. Although the whole of the *Tulava Bráhmans* form a kind of separate nation, yet each subdivision confines its marriages to its own original nation; and, contrary to the custom of the *Namburis*, a *Karnataca Tulava Bráhman* has no objection to marry the daughter of a *Bráhman* of *Karnata* who never has left his own country. 1801. Feb. 11.

They allege, that originally they were assembled here from all their native countries by *Parasu Rama*, who created *Tulava* for their use, in the same manner as he created *Malayala* for the *Namburis*. The language of *Tulava* has a strong resemblance to that of *Malayala*, and the written characters are the same; but in the language of *Tulava* there is a very great admixture of words from all the countries containing the five southern nations of India. *Origin of the Tulava Bráhmans.*

Originally, the *Tulava Bráhmans* were followers of *Batta Acharya*, who flourished at *Ahichaytra*, on the banks of the *Godavery*. An account of his life, which they of course consider as prophetical, is to be found in the *Skandha Purana*, one of the eighteen books written by *Vyasa*. *Batta Acharya* had great success against 18 of the 21 heretical sects, some of which admitted, and others denied, the authority of the *Vedas*. *Batta Acharya.*

Afterwards *Sankara Acharya* disputed with the followers of *Batta*, and, having convicted them of numerous errors, gained many proselytes; and many of the *Tulava Bráhmans* continue to follow his doctrines, and receive the *Sringa-giri Swamulu* as their *Guru*, and as the successor of *Sankara Acharya*. In this *Yugam*, or age, there have been three appearances of *Sankara Acharya*. First, he was born at *Sivuli*, in *Tulava*, about 150 years ago, and established the *Matam* or college at *Sringa-giri*. His next appearance was some hundreds of years afterwards; when he was born in *Malayala*, and lived at *Sri Rangam* near *Trichinopoly*. Lastly, he was born about 600 years ago at *Paducachaytra*, in *Tulava*. In the *Skandha Purana* composed, as my informants imagine, many myriads of millions of years ago, an account of all his transactions in these three incarnations is to be found, and also an account of the great success which he had against the heretical sects. *Sankara Acharya.*

Madua Acharya was last born at *Paducachaytra*, in the year of this *Kali-yugam* 4300, or 601 years ago. In the time of the five sons of *Pandu*, he had appeared as one of these brothers, named *Bima*; in the time of *Rama* he had been *Hanumanta*; and in the *Kali-yugam* preceding this (for the *Bráhmans* suppose a constant succession of the four *Yugams*) he had appeared as the *Madua Acharya* *Madua*

1801. Feb 11. of that degenerate age. When he appeared last, he not only confuted the heretical sects, but obtained great victory in dispute over *Sankara Acharya*, who had forced all the *Madual Bráhmans* outwardly to adopt his opinions; and he thus restored his sect to its proper splendour. The *Hindus* will seldom allow their own sect to have had any origin; but insist rather, that it has existed from all eternity, or at the very least from the first origin of things. The *Maduals* say, that all the different sects were created in the beginning by *Narayana*, and have continued ever since, sometimes one prevailing and sometimes another; and the prevailing sect has always forced the others, at least in appearance, to comply with their doctrine.

Doctrine of the *Madual*. The *Madual* allege, that there is one supreme God, *Narayana* or *Vishnu*. His son is *Brahma*, who is the father of *Siva*. Both of these ought to be worshipped, but *Brahma* only mentally; as temples and regular forms of prayer to that deity are not lawful. They look with abhorrence upon the doctrine of the spirits of good men being absorbed into the deity, in which they differ from both *Smartal* and *Sri Vaishnavam*. *Moesha* they consider as the highest heaven; and men who, by their piety, obtain a place there, are ever afterwards exempted from change; but still they are greatly inferior to *Narayana*, or the other great gods; and, according to their merit, enjoy different ranks. The *Madual* pray to the *Devatas* who reside in *Swargham*, which they say is the same with *Maha Meru*; and when they are sick they pray to the destructive spirits, such as *Marima*, *Putalima*, and *Kalima*. These are not considered to be different names for the wife of *Siva*, as the *Smartal* allege, but beings that live in the stars, clouds, and lower regions of the heavens. The *Madual Bráhmans* of *Tulava* act as *Pujaris* in the temples of these spirits, and offer sacrifices of paste made in the form of animals, but will not consent to the shedding of blood. In this country there are eight *Sannyasis*, each of whom has a *Matam* at *Udipu*, and each has a disciple who from his infancy is brought up to celibacy and other mortifications, and is destined to be his successor. These eight *Sannyasis* are the *Gurus* of the whole sect in *Tulava*; and each maintains a number of disciples, who are permitted to marry, but who are men of great Indian learning, and who read, and perform all manner of services for their master. These *Sannyasis* are not conceived to be any portion of the deity; nor is it even believed, that in general they obtain after death a seat in *Moesha*. To attain this, a *Bráhman* must completely adhere to every rule of his order, which is attended with so much difficulty, that human nature is seldom adequate to the task. No other caste has any kind of chance to procure a place so near the gods; and my informants seem to doubt, whether it be even possible for any person of low rank ever to be born a *Bráhman*. Temporal blessings they consider as those which the three lower castes ought chiefly to expect; and, by means of charity given to their superiors, they may have an abundance of these low pleasures.

The eight *Gurus*, each in his turn for two years, act as priests (*Pujaris*) in the temple of *Krishna* at *Udipu*. During this time the officiating *Sannyasi* must not only defray the expense of worship, but must feed all his disciples, and every *Bráhman* that comes to the place. To do this handsomely, will require above 20,000 *Pagodas* (8054*l.* 14*s.* 8½*d.*); and the very least, for which it can be done, is 13,000 *Pagodas* (5238*l.* 4*s.* 8½*d.*) In order to raise such great sums, each *Sannyasi*, with his disciples, during the fourteen years that he is out of office, wanders about the country, and, wherever he goes, levies contributions under the name of *Bhiksha*, or begging. Out of these alms he not only supports a considerable equipage, and feeds all his disciples, but can save a sum sufficient to defray the expense which he must incur during the two years that he performs the office of *Pujari*. Except in *Tulava*, these *Sannyasis* have no authority as *Gurus*; for above the *Ghats* there are three *Matams*, whose *Sannyasis* possess the sole authority of bestowing *Chakrantikam* and *Upadesa*, and of punishing transgressions against the rules of caste. Each *Sannyasi* of *Tuluva* has certain families, who are hereditarily annexed to his *Matam*, as to that of their *Guru*. As, however, the officiating *Pujari* never goes out of the temple, and as the others are generally absent, begging, the eight have mutually appointed two persons to act as judges. These have the power of excommunication, which implies the whole wealth of the sect being at their mercy. They also levy fines, and cleanse sinners by prayers (*Mantrams*), cow's urine, and other things esteemed pure. The *Gurus* reserve to themselves the exclusive right of bestowing *Chakrantikam* and *Upadesa*. They never, at any ceremony, read *Mantrams*, that office being reserved for the married *Bráhmans*; and each man by hereditary right belongs to some *Bráhman*, who is his *Purohita*. The *Sannyasis* do not require a *Purohita*; for they are considered as sufficiently holy to be exempted from all the ceremonies and customs usually observed by *Bráhmans*. They do not wear the thread; all meats become to them indifferent; and they do not celebrate the ceremonies in honour of their deceased parents. A *Purohita* may sell or mortgage the families that belong to him, and may give them to a *Bráhman* of any sect; for the prayers (*Mantrams*) and portions of Scripture (*Sastrams*) read by any person of the sacred order, whatever his theological opinions may be, are considered as equally efficacious. This does not proceed from any gentleness or facility of temper among the *Bráhmans*, who abound in the *Odium theologicum*. It is, however, between the *Madual* and *Sri Vaishnavam*, although both are worshippers of *Vishnu*, that the most violent antipathy prevails. The *Smartal*, although followers of *Siva*, agree much better with the *Madual*; and, in *Tulava* and *Malayala* especially, these two live on tolerable terms. In *Tulava*, indeed, it is not unusual for one temple to be common to both gods; and in most places there the temples of *Vishnu* and of *Siva* are built near each other, and the same *Rath*, or chariot, serves for the *Jatram*, or procession, of both idols.

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To the east of the *Ghats*, the *Madual Bráhmans* scorn to serve as *Pujaris*, even in the temples of *Vishnu*, and are the proudest of the whole sacred order. This scorn, however, is perhaps affected; as when *Madua Acharya* appeared, the *Sri Vaishnavam* were in possession of the temples, and have always been favourites with the persons in authority.

Customs.

The *Bráhmans* of *Tulava* are allowed a plurality of wives, which must be of the same nation with themselves, but of a different *Gotram*, or family, and which must be married before the signs of puberty appear. Their widows cannot marry, but may become *Moylar*, as already described. It is looked upon as disreputable for a *Bráhman* to keep a woman of this kind, and he would lose caste by having connection with a dancing girl, or with a *Moylar*, that did not belong to a temple; but all such women as are consecrated to the gods cohabit with some *Bráhman* or other. The *Bráhmans* of *Tulava* burn the dead, and their widows ought to be burned along with them; but this practice has gone entirely into disuse. They can neither eat animal food, nor drink spirituous liquors. A man's own children, even in landed property, are his heirs.

History of *Tulava*.

I next questioned these *Bráhmans* concerning the history of the country; and they produced a book called *Grama Paditti*, which they say is historical. It is written in *Sanskrit*, and is presumed to have been composed by *Vishnu*, who assumed a human form, under the name of *Vedi Vyasa*, and promulgated the *Vedas*, the eighteen *Puranas*, the *Grama Paditti*, and other sacred writings. From this work the *Bráhmans* say, that *Tulava* was created, and given entirely to them, 1 *Arbuda*, 95 *Crowds*, 58 *Lacs*, and 80 thousand of years, before the extinction of the *Pandu* family. The last of these ended his reign in the year of the *Kali-yugam* 1036,

or	3,865	years ago.
Add 80 thousand	80,000	
58 *Lacs*	5,800,000	
95 *Crowds*	950,000,000	
1 *Arbuta* ..	1,000,000,000	
	1,955,883,865	years since the creation of

Tulava, according to the *Grama Paditti*. The candid reader will not expect, that in a work comprehending the accounts of such a long duration of time a few thousand years, earlier or later, in the chronology of these degenerate times can be considered as of any consequence. This having been premised, and the accounts of the *Hindu* gods and *heroes* having been left in becoming obscurity, we find from the *Grama Paditti*, that 1115 years after the family of the *Pandus* became extinct, *Ananda Raya* governed *Tulava*. He and his eight brothers (or rather kinsmen in the male line) reigned 200 years, or until the year of the *Kali-yugam* 2351. *Vakia Raja* and his ten sons (descendants) reigned 112 years, till *Kali-yugam* 2463. *Maursushy* and his ten sons governed 137 years till *Kali-yugam*

2600. *Cadumba Raya* 45 years, till *Kali-yugam* 2645. *Myuru Varma* 10 years, till *Kali-yugam* 2655. *Hubushica*, chief of the savages called *Coragoru*, or *Corar*, governed 12 years, till *Kali-yugam* 2657. *Locaditya Raya*, son of *Myuru Varma*, expelled the *Coragoru*, and governed *Tulava*, *Malayala*, and *Haiga* 21 years, till *Kali-yugam* 2678. After his death, eighty-one of his cousins, among whom the chief was *Cadumba Raya* of *Wudia-nagara*, governed 24 years, till *Kali-yugam* 2702. *Balhica Raya*, and twenty-nine other petty princes, governed 46 years, till the *Kali-yugam* 2748. *Abhiri*, and ten *Rajas* governed 99 years, till *Kali-yugam* 2847. The descendants of *Mona Raja* then reigned 200 years, till *Kali-yugam* 3047, or till 53 years before the birth of Christ. At this time *Mahummud Surtala*, a *Mlecha*, who was a spy, visited the whole country as far as *Rameswara*. It must be observed, that, according to these *Bráhmans*, *Mlecha* properly means an *Arab*, *Turc* a *Tartar*, and *Yavana* an European; but all the three terms are frequently applied to the nations living toward the north and west of *Hindustan*, without distinction of country or religion. Nine *Belalla Rayas* governed 6 years, till *Kali-yugam* 3053, or 47 years before the birth of Christ. The *Turc* then returned, took *Anagundi*, and governed 540 years, till the *Kali-yugam* 3593, or *A. D.* 493. The followers of *Vyasa* here, it must be observed, cut short the government of the *Belalla* family, who are more detestable than *Mlechas*, as having been followers of the *Arhita* or *Jain Bráhmans*. *Campi Raya* of *Penu-conda* drove out the *Mlechas*, and governed 13 years over the whole country south of the *Krishna*, till the year *Kali-yugam* 3606, or *A. D.* 506. This prince sent an officer named *Sankara Deva Raya* to visit *Tulava*. In his train was a messenger (*Peon*) named *Hucabuca*, a *Curuba* by caste. This fellow, having received assistance from the *Yavanas*, took *Anagundi*, and having built a city near it, which he called *Vijaya-nagara*, or the city of victory, he assumed the title of *Hari-hara Raya*. This account of the origin of the family of *Vijaya-nagara* may be attributed to the following circumstance. The *Bráhmans* of *Tulava* had hitherto been exempted from taxes; but *Hari-hara*, on the conquest of the country, imposed an annual tax upon them, to the amount of 12,000 *Morays* of rice. *Deva Swami*, a tributary prince, was ordered to collect this tax; but, his conscience having revolted at the thoughts of exacting tribute from the *Bráhmans*, he was dismissed, and their tax was increased to 2578 *Pagodas* in money. The history of the *Grama Paditti* ends with this grievous event; but the *Bráhmans* say, that thirteen princes of the family of *Hari-hara* governed for about 150 years, or from *A. D.* 493 to 643. Unfortunately for the exactness of this chronology, many inscriptions on stone, made in the reigns of these princes, are scattered throughout their dominions. Copies of five of these have been delivered to the Bengal government. The date of the first is in the era of *Salivahanam* 1297, or *A. D.* 1375, and of the latest *E. S.* 1400, or *A. D.* 1478. With this correction of about eight centuries and a half, *Muhammad*

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Surutala may have been a Mussulman, and probably some of the followers of *Muhammad Ghizni*. The *Yavana* dynasty of *Anagundi* is, however, a matter of great curiosity, and not yet well understood.

Krishna Rayalu.

These *Bráhmans* say, that the celebrated *Krishna Rayalu*, of *Vijaya-nagara*, was not of the family of *Hari-hara*, but governed the same dominions after the overthrow of the former dynasty. He was descended from the nurse of one of the five princes called *Pandus*, who lived at the commencement of the present *Kali-yugam*. *Dharma Raya*, the last of these five brothers, died in the year 36 of that era, or 4865 years ago.

Jain Rajas, or Polygars.

The country of *Tulava* was first subject to the kings of *Anagundi*, and then to the princes of *Ikeri*; by whom, these *Bráhmans* suppose, the *Jain Polygars* were appointed; but they pretend an almost total ignorance of these chiefs, and a sovereign contempt for their sect.

Processions of the Bráhmans.

They allege, although there were *Jain Rajas* in many parts of *Tulava*, that there never was one at *Barcuru*; but that it, and all the *Gramas* in *Tulava*, were governed by *Bráhmans* immediately dependent on the sovereign, and over whom these infidel chiefs had no control. The thoughts of being subject to a *Jain* are indeed horrible to a follower of *Vyasa*; nor will it ever be acknowledged, where there is a possibility of denial. When pushed to account for the introduction of so many *Jain* into a country made expressly for the *Bráhmans* who follow the true doctrine of *Vyasa*, they say, that *Hubashica* drove all the *Bráhmans* out of the country; and that, when *Lokaditya* regained his paternal dominions, he only brought a few *Bráhmans* from *Ahichaytra*, where he resided during his exile, and gave them the 32 *Gramas*, which they enjoyed without molestation till *Hari-hara* imposed the illegal tax. I think it probable, that *Lokaditya*, in order to procure assistance to regain his throne, changed the religion which he inherited from his father *Myuru Varma*, who, according to the *Jain* of *Mudu Biddery*, was of their sect; and having become a follower of *Batta Acharya*, then teaching the doctrine of *Vyasa* with great success on the banks of the *Godavery*, he brought with him the first colony of *Tulava Bráhmans*, and gave them a gift *(Enam)* of thirty-two villages. In imitation of the *Namburis*, they afterwards set up the story of *Parasu Rama*; but it does not seem to have succeeded so well with them as with their southern neighbours.

Udipu, and its history.

Udipu is a town which contains about 200 houses, and stands about a coss from the sea near a small river called the *Pápa-nasina*, which comes from a *Tank* at *Carculla*, passes about two miles to the south of the town, and falls into the sea at a fort named *Duria Bahadar*. Near *Udipu* is a small fort, which formerly was the residence of *Chittupadi Baylala*, the chief *Bráhman* of the town (*Grama*). Each of the 32 *Gramas* belonging to the *Tulava Bráhmans* was governed and defended by an hereditary chief of their own sect, who was in every respect, but the name, a *Polygar*, or petty chief;

some of them assumed the title of *Baylala*; others that of *Hegada*, 1801.
which signifies mighty. Feb. 11.

At *Udipu* are three *Gudies*, or temples, which are placed in a common square, and surrounded by 14 *Matams*, or convents, belonging to an equal number of *Sannyasis*, who are *Gurus* to different sects of *Bráhmans*. Eight of these *Matams* belong to the eight *Madual Sannyasis*, who in their turn officiate as priests in the temple of *Krishna*, which is one of the three that stand in the square. Two other *Matams* belong to *Sannyasis* of the same sect; each of the predecessors of whom, as well as the eight others, received an image from *Madua Acharya*; but they have few followers, and are not entitled to officiate at the temple. Three other *Matams* belong to the three *Sannyasis*, who are the *Gurus* of all the *Madual Bráhmans* to the eastward of the mountains. The fourteenth *Matam* belongs to the *Sringa-giri Swami*. These *Matams* are large buildings; and, considered as houses belonging to *Hindus*, improved by neither Mussulman nor European arts, they are stately edifices. Some pains have even been taken to admit air, as they have many windows. Apertures indeed "for the purpose of intromitting air and light," although scarcely deserving the appellation of windows, are more common in the houses of *Tulava*, than I have any where else seen among the mere natives of *Hindustan*. The *Matams* are designed chiefly as storehouses, in which the *Sannyasis* may deposit the produce of their begging till they want it for consumption. Being too expensive guests, they very seldom reside in one place more than a few days. The temples, as usual, are but poor buildings, and, like almost all those of *Malayala* and *Tulava*, have pent roofs. Those here are roofed with copper, which must have cost much money; but, being very rudely wrought; it makes no show.

Customs of the *Corar*.

Having assembled some of the *Corar*, or *Corawar*, who under their chief *Hubashica* are said to have once been masters of *Tulava*, I found, that they are now all slaves, and have lost every tradition of their former power. Their language differs considerably from that of any other tribe in the peninsula. When their masters choose to employ them, they get one meal of victuals, and the men have daily one *Hany* of rice, and the women three-quarters of a *Hany*. This is a very good allowance; but, when the master has no use for their labour, they must support themselves as well as they can. This they endeavour to do by making *Coir*, or rope from coco-nut husks, various kinds of baskets from *Ratans* and climbing plants, and mud walls. They pick up the scraps and offals of other people's meals, and skin dead oxen, and dress the hides. They build their huts near towns or villages. Their dress is very simple, and consists in general of a gridle, in which they stick a bunch of grass before, and another behind. Some of the men have a fragment of cloth round their waist; but very few of the women ever procure this covering. They are not, however, without many ornaments of beads, and the like; and even when possessed of some wealth, do

1801. Feb. 11. not alter their rude dress. Some few of them are permitted to rent lands as *Gaynigaras*. In spite of this wretched life, they are a good looking people, and therefore probably are abundantly fed. They have no hereditary chiefs, and disputes among them are settled by assemblies of the people. If they can get them, they take several wives; and the women are marriageable both before and after puberty, and during widowhood. They will not marry a woman of any other caste; and they are considered of so base an origin, that a man of any other caste, who cohabits with one of their women, is inevitably excommunicated, and afterwards not even a *Corar* will admit his society. The marriages are indissoluble, and a woman who commits adultery is only flogged. Her paramour, if he be a *Corar*, is fined. The master pays the expense of the marriage feast. When a man dies, his wives, with all their children, return to the huts of their respective mothers and brothers, and belong to their masters. They will eat the offals of any other caste, and can eat beef, carrion, tigers, crows, and other impure things; they reject however dogs and snakes. They can lawfully drink intoxicating liquors. They burn the dead, and seem to know nothing of a state of future existence, nor do they believe in *Paisachi*, or evil spirits. Their deity is called *Buta*, and is represented by a stone, which is kept in a square surrounded by a wall. To this stone, in all cases of sickness, they sacrifice fowls, or make offerings of fruit or grain, and every man offers his own worship (*Púja*); so that they have no officiating priest, and they acknowledge the authority of no *Guru*. They follow all the oxen and buffaloes of the village, as so much of the live stock, when these are driven in procession at a great festival which the farmers annually celebrate.

Feb. 12. Appearance of the country. 12th *February*.—I went three cosses to *Brahma-wara*. The rice grounds extend from *Udipu* to the sea; their extent towards the north and south is not considerable. I soon came to gently rising hills, free of woods; but the road was finely sheltered by avenues of the beautiful *Vateria indica*, called here *Dupada Maram*, or the resin tree. I passed first through *Kalyana-pura*, which was formerly a large place: but during *Tippoo's* government it has been almost entirely ruined. I then crossed a very wide, but shallow river, named the *Suvarna*. Its source is from a lake or tank near *Carculla*; but it owes its magnitude entirely to the water of the sea. Near the *Suvarna* are many fine plantations of coco-nut palms, and also some rice grounds. *Bracuru* is near *Brahma-wara*; but for a long time even previous to the irruption of *Sivuppa Nayaka*, it has been ruined. The fortress was erected by *Hari-hara*, first king of *Vijayanagara*. It still gives its name to the district (*Taluc*), the *Tahsildar* of which resides at *Brahma-wara*. This is a small place containing only about 60 houses, but in its neighbourhood there is much rice ground.

Cultivation and produce of rice lands. I have received much information relative to the produce of the rice grounds in this neighbourhood; partly from Mr. Ravenshaw, and partly from the people employed to measure and value the

district. In the annexed Tables I give some of this information, 1801.
with the measures reduced to the English standards. It must be Feb. 12.
observed, that the *Gunta*, or chain used by the surveyors, ought to have been 33 English feet in length; but, owing to the rudeness of the workmanship, it had stretched to 33 feet 10½ inches: by the standard, the acre would be equal to 40 *Guntas*; but, by the actual chain, it would be equal to only 37 96/100 *Guntas*. I calculate, however, by the standard measure. The *Mudi* or *Moray* in use here is that of the market of *Mangalore*; but is divided, when speaking of seed, into 60 *Hanies*; and, when speaking of produce, into 40 *Hanies*; but the produce is in general estimated in rice, after deducting the expense of beating and cleaning. It would appear from all circumstances, that the quantity of seed which is sown on the same extent of ground, even of the same kind, differs much. Whether this proceeds from the natives having found by experience, that such or such a field gives most profit when sown with a certain quantity of seed; or whether it arises from a want of precision and economy that attends all rude states of agriculture, I cannot take upon myself to affirm; but the latter cause seems the most probable. The seed is here sown much thinner than in *Malabar*; which, although a kind of saving that is common in every part of India, seems to be very injudicious: the crops in general appear to me to be proportionably scanty. Of the gross produce of estates, one half is here, as in most parts of India, considered as a proper reward for the labour of the cultivator, and the use of his stock; and is perhaps sufficient, considering that his cattle pay nothing, that his other stock is of little or no value, and that the quantity of seed is very small. Owing to the present great want of people and stock, the cultivators, however, do not in general pay so much; and, according to the valuation of five villages in this neighbourhood, I find, that out of 2048 *Pagodas*, the gross value of their produce, the cultivators retain 1295 *Pagodas*. The share of the government amounts in general to one quarter of the gross produce; and in these villages is 671 *Pagodas*, of which 37 are alienated in *Enam*, or charity lands, as they are called. What remains to the landlord is 82 *Pagodas*; but part of their lands are waste, and the *Enams* are nominally higher than what is here stated; so that, apparently, some of the landlords, who are supposed to pay these charities, are losers by their estates. At present, they are all cultivators; and, when the country is repeopled, there can be little doubt, that, should they not encumber themselves with mortgages, they will enjoy one-fourth of the gross produce of their estates; for a part of the present great share of the cultivators arises from the interest of money which they have advanced on their farms; and this also should be considered as a part of the profits of the landlord.

13th *February*.—I went three cosses to *Hirtitty*, one of the Feb. 13.
fourteen small villages that are called by the common name of *Cotta*. Language and Inhabitants.
The whole of this almost is occupied by *Brahmans*, who pretend to

1801. Feb. 11. not alter their rude dress. Some few of them are permitted to rent lands as *Gaynigaras*. In spite of this wretched life, they are a good looking people, and therefore probably are abundantly fed. They have no hereditary chiefs, and disputes among them are settled by assemblies of the people. If they can get them, they take several wives; and the women are marriageable both before and after puberty, and during widowhood. They will not marry a woman of any other caste; and they are considered of so base an origin, that a man of any other caste, who cohabits with one of their women, is inevitably excommunicated, and afterwards not even a *Corar* will admit his society. The marriages are indissoluble, and a woman who commits adultery is only flogged. Her paramour, if he be a *Corar*, is fined. The master pays the expense of the marriage feast. When a man dies, his wives, with all their children, return to the huts of their respective mothers and brothers, and belong to their masters. They will eat the offals of any other caste, and can eat beef, carrion, tigers, crows, and other impure things; they reject however dogs and snakes. They can lawfully drink intoxicating liquors. They burn the dead, and seem to know nothing of a state of future existence, nor do they believe in *Paisachi*, or evil spirits. Their deity is called *Buta*, and is represented by a stone, which is kept in a square surrounded by a wall. To this stone, in all cases of sickness, they sacrifice fowls, or make offerings of fruit or grain, and every man offers his own worship (*Púja*); so that they have no officiating priest, and they acknowledge the authority of no *Guru*. They follow all the oxen and buffaloes of the village, as so much of the live stock, when these are driven in procession at a great festival which the farmers annually celebrate.

Feb. 12. Appearance of the country.

12th *February*.—I went three cosses to *Brahma-wara*. The rice grounds extend from *Udipu* to the sea; their extent towards the north and south is not considerable. I soon came to gently rising hills, free of woods; but the road was finely sheltered by avenues of the beautiful *Vateria indica*, called here *Dupada Maram*, or the resin tree. I passed first through *Kalyana-pura*, which was formerly a large place: but during *Tippoo*'s government it has been almost entirely ruined. I then crossed a very wide, but shallow river, named the *Suvarna*. Its source is from a lake or tank near *Carculla*; but it owes its magnitude entirely to the water of the sea. Near the *Suvarna* are many fine plantations of coco-nut palms, and also some rice grounds. *Bracuru* is near *Brahma-wara*; but for a long time even previous to the irruption of *Sivuppa Nayaka*, it has been ruined. The fortress was erected by *Hari-hara*, first king of *Vijaya-nagara*. It still gives its name to the district (*Taluc*), the *Tahsildar* of which resides at *Brahma-wara*. This is a small place containing only about 60 houses, but in its neighbourhood there is much rice ground.

Cultivation and produce of rice lands.

I have received much information relative to the produce of the rice grounds in this neighbourhood; partly from Mr. Ravenshaw, and partly from the people employed to measure and value the

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district. In the annexed Tables I give some of this information, with the measures reduced to the English standards. It must be observed, that the *Gunta*, or chain used by the surveyors, ought to have been 33 English feet in length; but, owing to the rudeness of the workmanship, it had stretched to 33 feet $10\frac{1}{2}$ inches: by the standard, the acre would be equal to 40 *Guntas;* but, by the actual chain, it would be equal to only $37\frac{96}{100}$ *Guntas.* I calculate, however, by the standard measure. The *Mudi* or *Moray* in use here is that of the market of *Mangalore*; but is divided, when speaking of seed, into 60 *Hanies*; and, when speaking of produce, into 40 *Hanies*; but the produce is in general estimated in rice, after deducting the expense of beating and cleaning. It would appear from all circumstances, that the quantity of seed which is sown on the same extent of ground, even of the same kind, differs much. Whether this proceeds from the natives having found by experience, that such or such a field gives most profit when sown with a certain quantity of seed; or whether it arises from a want of precision and economy that attends all rude states of agriculture, I cannot take upon myself to affirm; but the latter cause seems the most probable. The seed is here sown much thinner than in *Malabar*; which, although a kind of saving that is common in every part of India, seems to be very injudicious: the crops in general appear to me to be proportionably scanty. Of the gross produce of estates, one half is here, as in most parts of India, considered as a proper reward for the labour of the cultivator, and the use of his stock; and is perhaps sufficient, considering that his cattle pay nothing, that his other stock is of little or no value, and that the quantity of seed is very small. Owing to the present great want of people and stock, the cultivators, however, do not in general pay so much; and, according to the valuation of five villages in this neighbourhood, I find, that out of 2048 *Pagodas*, the gross value of their produce, the cultivators retain 1295 *Pagodas.* The share of the government amounts in general to one quarter of the gross produce; and in these villages is 671 *Pagodas*, of which 37 are alienated in *Enam*, or charity lands, as they are called. What remains to the landlord is 82 *Pagodas;* but part of their lands are waste, and the *Enams* are nominally higher than what is here stated; so that, apparently, some of the landlords, who are supposed to pay these charities, are losers by their estates. At present, they are all cultivators; and, when the country is repeopled, there can be little doubt, that, should they not encumber themselves with mortgages, they will enjoy one-fourth of the gross produce of their estates; for a part of the present great share of the cultivators arises from the interest of money which they have advanced on their farms; and this also should be considered as a part of the profits of the landlord.

Feb. 13. Language and Inhabitants.

13th *February*.—I went three cosses to *Hirtitty*, one of the fourteen small villages that are called by the common name of *Cotta*. The whole of this almost is occupied by *Brahmans*, who pretend to

1801. Feb. 13. be of *Parasu Rama's* colony, although almost the only language spoken by them is that of *Karnata*. Very few of them understand the peculiar dialect of *Tulava*. It must be observed, however, that, this country having been long subject to princes residing above the *Ghats*, all persons of rank speak the language of *Karnata*; and from having been subject to these princes, and from its having been the place where all intercourse between them and Europeans was conducted, the province has got the name of the coast of *Canara*, a corruption of *Karnata*. In the towns on the sea-coast the Mussulman language is more commonly understood, than in any other part of the peninsula that I have visited.

Appearance of the country. The road from *Brahma-wara* to *Hirtitty* for the most part passes along a low sandy ridge, on either side of which are extensive rice-grounds; for the *Bráhmans*, as usual, have appropriated to themselves the finest parts of *Tulava*. The country looks well; for even the greater part of the sandy height is inclosed, and planted for timber and fewel. Except where the cattle were forced to swim over a very wide river, called *Mabucullu*, the road was comparatively excellent. This river descends from the *Ghats*, and in the rainy season brings down a great body of fresh water; but, where the road crosses, it is at this season quite salt. The tide goes up from the sea about three cosses; and canoes, in the rainy season, can ascend six cosses from the mouth. The banks are well planted with coco-nut trees, which in *Tulava* seem confined chiefly to such places.

Feb. 14. Mr. Read's district. 14th *February*.—I went three cosses to *Kunda-pura*, where I entered the northern division of *Canara*, which is under the management of Mr. Read, a young gentleman brought up in the same school with Mr. Ravenshaw. I had not the good fortune to meet with him; but he was so obliging as to send me very satisfactory answers to the queries that I proposed in writing, of which I shall avail myself in the following account. The country between *Hirtitty* and *Kunda-pura* resembles that between *Bráhma-wara* and *Hirtitty*; only there is by the way neither river nor coco-nut plantations; and, in proportion, the extent of rice-ground is smaller. The whole road is excellent, and fit for any kind of carriage, except in one place, where, in the descents to a low narrow valley, stairs have been formed. By the natives these are considered as an excellent improvement on a road, although they are very inconvenient even for cattle that are carrying back-loads.

Face of the country.

Feb. 15. Kunda-pura. 15th *February*.—I was detained at *Kunda-pura*, as being the only place where I could get a supply of necessaries, till I reached *Nagara*; and also in expectation of meeting a *Bráhman* named *Ramuppa Varmica*, who is said to be the most intelligent person in the country concerning its former state.

Kunda-pura is situated on the south side of a river, which in different places, according to the villages which it passes, is called by different names. This river is in general the boundary between the northern and southern divisions of *Canara*; but *Kunda-pura* is

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under the collector of the northern division. The villages or towns on the banks of this river are the places where all the goods coming from, or going to *Nagara* are shipped, and landed. The custom-house is at *Kunda-pura*; but the principal shipping place is farther up the river at *Bassururu*. On the north side of the river the *Sultan* had a dock; but the water on the bar, even at spring tides, does not exceed 9 cubits, or 13½ feet. The river, or rather lake, at *Kunda-pura* has only one opening into the sea. It is very extensive, and the only ferry-boats on it are wretched canoes. Five fresh water rivers come from the hills, and, meeting the tide in this lake, intersect the whole level ground, and form a number of islands. I have not seen a more beautiful country than this; and an old fort, situated a little higher up than the town, commands one of the finest prospects that I ever beheld. The people here seem to have no knowledge of any thing that happened before the conquest by *Sivuppa Nayaka*; since which it is, that the place has risen into any kind of consequence. The origin of its rise was probably a small fort built by the Portuguese. Round this General Mathews drew lines, as a defence for his stores, when he went up to *Nagara*. These were afterwards somewhat strengthened by *Tippoo*, but were always poor defences. The town contains about 250 houses, and is never remembered to have been larger. It is the head-quarters of a battalion of *Bombay Sepoys*, by the officers of which I was most kindly received.

Hu-minu, or flower-fish.

Colonel Williamson informed me, that at no great distance there was a tank of fresh water, in which was a kind of fish that the *Sultan* reserved for his own use, and which by the natives was named *Hu-minu*, or the flower-fish. It is a large fish, full of blood, and very fat, but is only fit for use when salted. For this purpose it is excellent, a circumstance very rare with fresh-water fish; so that the propagating of this species in different parts of the country would seem to be an object worthy of attention. My time would not admit of seeing any of them taken, as the fishery cannot be carried on without some days preparation.

Customs of the *Bacadaru* and *Batadaru*.

In the northern parts of *Tulava* are two castes, called *Bacadaru* and *Batadaru*, both of whom are slaves; both speak no other language than that of *Karnata*, and both follow exactly the same customs. Each disputes for a pre-eminence of rank, and they will not eat nor intermarry with one another, except in certain cases of adultery, when, a ceremony of purification having been undergone, a slave of the one caste may marry a female of the other.

Although they do not use leaves to cover their nudities, they seem to be poorer and worse looking than the *Corar*, whom I lately described. Their masters give annually to each slave, male or female, one piece of cloth worth a *Rupee*, together with a knife. Each family has a house, and 10 *Hanies* sowing of rice-land, or about a quarter of an acre. At marriages they get one *Mudy* of rice ($\frac{3}{16}$ bushel), worth about 2*s*., and half a *Pagoda*, or 4*s*. in money. When

1801. Feb. 15 their master has no occasion for their work, they get no wages, but hire themselves out as labourers in the best manner they can; for they have not the resource of basket-making, nor of the other little arts which the *Corar* practise. The master is bound, however, to prevent the aged or infirm from perishing of want. When they work for their master, a man gets daily 1½ *Hany* of rice to carry home, with ½ a *Hany* ready dressed, in all 2 *Hanies*, or rather more than one-sixteenth of a bushel; a woman gets 1¼ *Hany* of rice to carry home, and ¼ *Hany* ready dressed; and a boy gets 1 *Hany* of rice.

These castes have no hereditary chiefs; but quarrels are amicably settled by eight or ten prudent men, who assemble the parties, and, with the assistance of a little drink, discuss the business. They never expel any one from the caste; even women who commit fornication with strange men are not subjected to this disgrace. If the seducer has been a *Sudra*, or man of pure birth, the husband is not at all offended at the preference which his wife has given to a superior. If he be a slave, the husband turns her away; but then she is taken to wife by her paramour, even though he be of a different caste. In order to purify her for this purpose, the paramour builds a small hut of straw, and, having put the woman into it, sets it on fire. She makes her escape, as fast as she can, to another village, where the same ceremony is again repeated, till she has been burned out eight times; she is then considered as an honest woman. The men may lawfully keep several wives, but either party may at pleasure give up the connection. Girls after the age of puberty, widows, and divorced women, are all allowed to marry. These castes can eat goats, sheep, fowls, and fish; but no other kind of animal food. They may lawfully intoxicate themselves. None of them can read, nor have they any kind of *Guru*, or priest. In every house is a stone representing the *Penates* called *Buta*, which, according to the *Brahmans*, means a devil, or evil spirit. Two or three times a year the family perform worship (*Puja*) to this stone, by oiling it, and covering it with flowers. Fowls are also sacrificed to *Buta*, whose worship generally costs the family from two or three *Pagodas* a year; but the sacrifices are the most extensive part, and these the votary eats. It must be observed, that the *Hindus* of pure descent seldom eat animal food, except such has been sacrificed to the gods; a custom that seems to have also prevailed among the Grecians, in whose language the same word ἱερεῖον signifies a sacrifice, and an animal whose flesh is fit for eating. When the annual worship of *Buta* is neglected, he is supposed to occasion sickness and trouble. The spirits of the dead, both of those who have been good or bad, and of those who died naturally or by accident, are supposed to become *Pysachi*, and are troublesome, unless a sacrifice is made to *Buta*, who takes the spirit to himself, and then it gives the living no more trouble.

Feb. 16 Appearance of the country. 16th *February*.—I was obliged to set out without seeing *Ramuppa Varmika*; and, after having crossed the lake, I went three

cosses to *Kira-maneswara*, a temple dedicated to *Siva*. I passed first between the sea and a branch of the *Kunda-pura* lake, and afterwards my road led along a rising ground near the sea. I saw many plantations of coco-nut trees; but owing to the want of inhabitants, they are very poor. About fifty years ago an epidemic fever raged in the country, and carried off a great number of the people. A few months ago the same complaint again destroyed many. The natives say, that before the third day it resembled a common fever; then the patient became delirious, and on the fifth day died. About ten years ago a predatory band of *Marattahs*, under the command of *Balu Row*, came this way, destroyed entirely the *Agrarum* at *Kira-maneswara*; and the inhabitants, who remained after the epidemic, were swept away from all the neighbouring country. 1801. Feb. 16.

The quantity of rice ground is small, and a great part of the country is covered with low woods, in which are to be seen the enclosures of former gardens. The road is good, but is not ornamented with rows of trees, as usual to the southward. The sea-coast, like that between *Mangalore* and *Kunda-pura*, is chiefly occupied by villages of *Bráhmans*; the interior parts of the country belong to *Buntar*. This is a part of *Tulava*, but the language of *Karnata* is that in most common use. The water in wells is no where at any great depth from the surface. The temple here is a sorry building. It had formerly lands to the yearly value of 100 *Pagodas*, or of about 40 guineas. Last year it received in money an allowance of 5 *Pagodas*. Face of the country.

17th *February*.—Early in the morning I was joined by the learned *Bráhman Ramuppa Varmika*, who accompanied me to *Beiduru*, three cosses distant. By the way we crossed three rivers; the first, called the *Edamavany*, is the most considerable; the second also is not fordable, and is called *Angaru*; the third is small, and joins the second at some distance to the westward. Its channel is in many places shut up, and converted into places for making salt; for the tide in all the three rivers, reaches a considerable way into the country. On this day's route there is much rice ground, and the crops look well. Feb. 17. Appearance of the country.

Beiduru is an open village, containing about 120 houses. It had once a fort, and was then a large place, which belonged to a *Jain* princess, named *Byra Devi*. This family was destroyed by the *Siva-bhaktars*, and the place has ever since been on the decline. The cultivators now are *Bráhmans*, and *Nadavar*, who are a kind of *Bunts*, but they do not speak the language of *Tulava*. The *Jainar* are quite extinct. One temple of the kind called *Busty* continued until the time of *Hyder*; when the *Pujari*, being no longer able to procure a subsistence, left the place. Beiduru.

The temple at present here is one dedicated to *Siva*. There are about it several inscriptions on stone, that contain the grants of lands with which the temple was endowed. One, which was a good deal defaced, so as not to be wholly legible, is dated in the year of Inscriptions at a temple of Siva.

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Salivahanam 1445 (*A. D.* $152\frac{2}{3}$), in the time of *Devarasu Wodear*, *Raja* of *Sanghita-pura*; and son of *Sanga-raya Wodear*, who held his *Rayada* of *Krishna Raya*, the chief of *Rajas* in wealth, a *Raja* equal to *Parameswara*, a hero greater than the *Trivira*, &c. &c. *Sanghita-pura*, in the vulgar language called *Hadwully*, is four cosses east from *Batuculla*, and was formerly the residence of a governor appointed by the kings of *Vijaya-nagara*. *Devarasu Wodear* must either have been one of these, or an ancestor of *Byra Devi*. *Krishna Raya* is, no doubt, the celebrated *Rayalu* of that name.

In another inscription, of which a copy has been presented to the Bengal government, it is stated, that in the year of *Salivahanam* 1429 (*A. D.* $150\frac{6}{7}$), and in the reign of *Jebila Narasingha Raya*, the great king of *Vijaya-nagara*, *Kedaly Baswappa Arsa Wodear* having been appointed to the *Rayada* of *Barcuru*, with orders to restore the lands of the god, and of the *Bráhmans*, certain merchants of *Beiduru* (*Nagara*) founded an inn for the accommodation of six travelling *Bráhmans*, and for this purpose purchased certain lands, which are specified in the inscription.

Ramuppa Varmika, a learned *Bráhman*.

Ramuppa Varmika says, that his family have been hereditary *Shanabogas*, or accomptants of *Barcuru* district, ever since the time of the *Bellala Rayas*; which dynasty, according to him, commenced their reign here in the year 637 of *Salivahanam*, or *A. D.* $71\frac{1}{3}$. *Ramuppa*, however, possesses no revenue accompts previous to the conquest of the country by *Hari-hara Rayalu*, in the year of *Sal.* 1258 (*A. D.* $133\frac{5}{6}$.)

His account of the *Rajas* who have governed *Tulava*.

Ramuppa has a book in *Sanskrit*, called *Vidiarayana Sicca*; and from thence, and his family papers, he has made out a *Raya Paditti*, or succession of the *Rajas* who have governed *Tulava*. Of this I here give a translation, with observations, partly made by himself, and partly from what I could collect from inscriptions. From these it will appear, that not much dependence can be placed on some of his dates. Great difficulty occurs in comparing the native accounts with those of the Mussulman writers, who corrupt the *Hindu* names most extravagantly, and hold all knowledge of the infidels in so much contempt, that very little can be gathered from what they say.

"*Sri.*"

"Succession of *Rajas*."

"The reign of the *Yudishtira* family commenced on Friday the 6th day of the noon, in the month *Chaitra*, in *Parimdi*, the 1st of the *Kali-yugam*."

"After this, *Parikshitta Raya* was king here."

Then follows a *Slokam* on his *Putapesheca*, which is a ceremony somewhat similar to our coronation and anointing.

"From *Parikshitta Raya* to *Nanda Raya's* coronation, there had elapsed of the *Kali-yugam* 1115 years," B. C. $198\frac{2}{3}$.

"After this, under *Nanda Raya* and his family, in all nine princes, there passed 200 years."

"After that, under ten princes of the *Vahanicula* family, passed 112 years."

"After that, under ten princes of the *Moviuan Navaiada* family, passed 137 years."

"After that, one *Cadumba Raya* had 45 years possession, till the year of the *Kali-yugam* 1609," B. C. 149½.

"After that, in the year *Vicruti*, of the *Kali-yugam* 1631 (B. C. 147½) *Myuru Varma* brought the *Bráhmans* from *Ahichaytra*, or *Eichetra*, and gave them 18 *Gramas* or villages. In this 22 years were employed, till the year of the *Kali-yugam* 1631."

"After that, *Myuru Varma* possessed the kingdom for 10 years."

"After that, *Trinetra Kadumba Raya*, son of *Myuru Varma*, sat on the throne of the kingdom for 12 years."

"After that, from the year *Virodicrutu Myuru Varma* governed with his son for 10 years, till 1663 years of the *Kali-yugam* had elapsed," (B. C. $143\frac{9}{40}$.)

"After that *Myuru Varma* gave *Cadumba Raya's* sister in marriage to *Lókaditya* at *Gaukarna*, and destroyed the *Hubahica* family. This occupied 15 years."

"After this, the countries of *Parasu Rama* being without *Bráhmans*, *Cadumba Raya* and *Lókaditya* brought good *Bráhmans*, and kept them in the country in the year *Sarvajitu*, being of the *Kali-yugam* 1689," (B. C. 1413).

"After this, under twenty-one *Jeantri Cadumba Rayas*, there passed 242 years."

From an inscription from *Bellagami*, which has been presented to the government of Bengal, it would appear, that a *Trinetra Cadumba* was sovereign prince in the year of *Sal.* 90 (*A. D.* 16½), or 1579 years after the time assigned for *Trinetra Cadumba* in this *Raya Paditti*. These princes, however, were probably the same; and in order to make the time of the possessions of the *Bráhmans* in *Tulava* much more ancient than it really is, the succession of dynasties has either been altered; or a number of families, that never existed, have been introduced to fill up the space between the *Cadumba Rayas* and the *Belalla* family, of whom many traces remain. In the northern parts of *Karnata* the *Cadumba* family seem long to have retained considerable power, as I procured two inscriptions, belonging to them, after the time of *Trinetra Cadumba*. The one is a grant of land to the *Kudali Swamalu* in the reign of *Puandara Raya* of the *Cadumba* family, who governed at *Banawasi* in the year of *Sal.* 1043, or *A. D.* $112\frac{0}{1}$. The other is from a temple near *Savanuru* in the reign of a *Cadumba Raya*, and in the year of *Sal.* 1130, or *A. D.* $120\frac{4}{5}$. Copies of these inscriptions have been delivered to the Bengal government.

"After the *Cadumba Rayas* there elapsed, under thirty-two *Banhica Rayas* 456 years."

"After that, under *Rajas* of the *Abhira* family there passed 1199 years."

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"After that, the *Monayer* family possessed the kingdom 200 years."

"3786 years of the *Kali-yugam* had now elapsed; of which the particulars are,

3044 years of the *Yudishtira* era.
135 years of the *Vikrama* era.
607 years of the era of *Salivahanam.*

3786 total of *Kali-yugam*," *A. D.* 68$\frac{4}{5}$.

Belalla family.

"From the year 607 of *Salivahanam, Belalla Rayaru,* and persons of the same family, being in all nine princes, governed 209 years. Above and below the *Ghats* they governed 98 years, and below the *Ghats* they continued to govern 111 years more."

"Above the *Ghats* were the following princes :"

"The *Yavanas* at *Anagundi* possessed the kingdom for 54 years."

Who were these *Yavanas?* This word properly signifies an European; but as the *Hindus* speak with great confusion concerning the northern and western nations, it is often confounded with the *Melenchas* and *Turcs,* or *Arabs* and *Tartars*; and all the three terms are frequently applied to the Mussulmans. But the *Yavanas* of *Anagundi* could not be Mussulmans, as their government by this account lasted from *A. D.* 782 till 836; and there is strong reason to believe, that *Ramuppa* is not essentially mistaken in the time at which the *Belalla Rayas* lived. Although he says that they only governed 98 years above the *Ghats,* this must not be understood literally, *Anagundi,* where *Vijaya-nagara* was afterwards built, was probably their first seat of government; and after their being expelled by the *Yavanas,* according to the accounts given verbally by *Ramuppa,* they retired to *Hully-bedu,* or *Goni-bedu,* a town situated above the *Ghats.* They governed *Tulava* by officers called *Rayaru,* who resided at *Barcuru,* and were also masters of all the southern parts of *Karnata.* They were of *Andray* or *Telinga* descent, and originally of the *Jain* religion. One of them having been killed by the Mussulmans, who then were making predatory excursions into the *Deccan,* his son removed the seat of government to *Tonuru,* near *Seringapatam*; and soon after this period *Tulava* seems to have withdrawn its allegiance, instigated perhaps to rebellion by his having thrown aside the religion of his fathers, and adopted that taught by *Rama Anuja,* as I have related in the seventh Chapter. After this conversion he resided at *Bailuru*; and from an inscription there, it would appear, that he rebuilt the temple of *Cayshava Permal* there, in the year of *Sal.* 1039, or *A. D.* 111$\frac{6}{7}$; while, from the inscription No. 13, it would appear, that his son, *Hoisela Narasingha Raya,* continued to govern in the year of *Sal.* 1095, or *A. D.* 117$\frac{2}{3}$. The government of the *Yavanas* of *Anagundi,* and of the *Hindu* princes who followed them, must have been confined to the northern and eastern parts of the peninsula: for we

have already seen, that the *Cadumba Rayas* continued to have possessions in the north-west of *Karnata*. 1801. Feb. 17.

"After the *Yavanas*, the *Campina Rama Rayas* had the kingdom 30 years."

"Then *Daria Soructa* cut off the head of *Campina Comora Ramanatha* in the year of the *Kali-yugam* 3951." (A. D. $8\frac{49}{50}$).

"After that, *Boji Raya* possessed the kingdom 68 years; and under nine princes of his family were passed 145 years. Total of the reigns of the ten princes of this family 213 years." (A. D. $106\frac{2}{3}$).

"After that, under eighteen princes of *Andray* descent, the ancestors of *Pratapa Rudra*, there passed 211 years."

"After this *Pratapa Rudra* possessed the kingdom 54 years, till the year of the *Kali-yugam* 4429," (A. D. $132\frac{1}{2}$) "then the kingdoms of *Andray* were in the possession of the *Mlécha*, who, increasing in power, seized on the dominions of *Pratapa Rudra*. They took his towns, and gained his kingdom, wealth, and umbrella. Then *Hucca* and *Buca*, both the *Bundara Cavilas*" (guards of the treasury) "of *Pratapa Rudra*, came to *Sir Maha Vidyáranya Mahá Swami*" (who according to *Ramuppa* was *Guru* to the late king, and the eleventh successor of *Sankara Acharya* on the throne of *Sringa-giri*), "and solicited his favour. The *Mahá Swami* visited God, and acted according to his orders. He built *Vijaya-nagara* city" (*Pattana*). "In seven years the whole city was fully built. In the year *Datu*, being 1258 of the era of *Salivahanam*" (A. D. $133\frac{5}{6}$), "in the 7th day of the moon in *Vaisákha*, being Wednesday, under the constellation *Mocca*, in *Abijun Muhurta*" (*Muhurta* is a division of the day containing $3\frac{3}{4}$ *Hindu* hours), "and in *Singha Laghana*" (*Laghana* is a space of time equal to $\frac{1}{2}$ a *Puhar*, or $\frac{1}{4}$ of a natural day), "he took both *Hucca* and *Buca*, the guards of the treasury of *Pratápa Rudra*. To the man *Hucca* he gave *Puttavuncu'ty*" (a ceremony like our coronation), "and gave him the name of *Hari-hara Ráyaru*. The whole kingdom was given to him in the year of the *Kali-yugam* 4437," or A. D. $133\frac{5}{6}$.

Kings of *Vijaya-nagara*, who rose on the ruins of the *Andray*.

There is reason to believe, that in the reigns of *Pratapá Rudra* and his ancestors the seat of government was *Woragulla* (*Warancul* of the Mussulmans), the chief place in *Andray* or *Telingana*. In many accounts, the last of the family is called *Woragulla Pratapa Raya*. He probably governed *Telingana*, or the country of warriors, and the northern parts of *Karnata* which were not subject to the *Belalla* family. We learn from Scot's translation of *Ferishta's* history of the *Deccan*, that in the year 1309 *Ala ad Dein*, Mussulman king of *Dhely*, sent *Mallek Naib* to invade *Telingana*, and obliged *Ludder Deo*, *Raja* of *Warancul*, to become tributary. In 1310 *Mallek Naib* advanced into *Carnatic*, and took *Raja Bellaul Deo* prisoner; and in 1312 he again over-run these countries, and obliged *Telingana* and *Carnatic* to become tributary to the throne of *Dhely*. This chronology agrees very well with that of the *Raya Paditti*, which makes the final overthrow of the kingdoms of *Andray* by the *Mlechas* to

801. Feb. 17. have happened in 1327, or 13 years after this last expedition of *Mallek Naib*, who had then rendered them tributary. It must be observed, that the *Belalla* family still continued to be in 1312 the principal rulers in *Karnata;* but the *Raya Paditti* considers them also as of *Andray*, as they originally came from that country. It is true, that *Pratapa Rudra* is not mentioned by *Ferishta*, by whom the *Raja* of *Warancul* is called *Ludder Deo;* but for this we may account, either from the sovereign contempt in which these infidel princes were held by the Mussulmans, who rarely gave themselves the trouble to inquire about their true names or customs; or *Ludder Deo* may be a corruption of some of the numerous titles, which, like all *Hindus* of his rank, this prince assumed.

Soon after this, we learn from *Ferishta* that the government of *Dhely* declined into the usual debility of an *Indian* dynasty that has been established for any length of time; and many chiefs declared themselves independent of the king's authority. Among these, the most remarkable was the founder of a dynasty, who governed the Mussulman conquests in the *Deccan*, and who were called the *Bhaminee Sultans*. This enterprising man, in the year 1347, was able to throw off all appearance of submission, and assumed at *Beder* all the insignia of sovereign authority. He was of course obliged to manage with discretion the [illegible] *Hindus;* and *Hucca* and *Buca*, two of the principal [illegible] *Rudra*, took this opportunity of establishing a kingdom in the southern parts of the countries which formerly belonged to princes of *Andray* descent; and to the southern provinces of *Pratapa Rudra*, they added those of the latter *Belalla Rayas*. *Ramuppa* says, that after the overthrow of their master, these two men undertook a pilgrimage to *Rameswara*; and, while on their way, met the *Guru* of the late king at *Humpay*, a village on the opposite side of the river from *Anagundy*, where afterwards *Vijaya-nagara* was built. Having conferred with this mighty *Bráhman*, he retired into a celebrated temple of *Siva*, who is worshipped at *Humpay* under the name of *Vira-pacsha*. Here the god was consulted; and the *Bráhman* declared, that he was ordered by the deity to crown *Hucca*, and to build the city *Vijaya-nagara*, or the city of victory. This name the Mussulmans corrupt into *Beejanuggur*; and *Ferishta* gravely tells us, that it derives its name from *Beeja*, a *Hindu* prince; and that it had been founded by the family who governed it in 1365, about 700 years previous to that time. Of his judgment in antiquities an opinion may be drawn from his also gravely relating, that *Deccan*, (that is the south country) derives its name from *Deccan*, the son of *Hind*, the son of *Ham*, the son of *Noah*. In this author we need not wonder at any corruptions of names; for he changes the name of the river on which *Vijaya-nagara* stands, from *Tunga-bhadra*, or contractedly *Tung'bhadra*, into *Tummedra*; and he corrupts the celebrated *Vikramaditya* into *Bickermajeet*.

The *Rayá Paditti*, having detailed the princes who governed

the country above the *Ghats*, returns to mention those who governed the sea-coast, while it was separated from *Karnata*. 1801. Feb. 17.

"Here below the *Ghats Belalla Raya* entered upon the government in the year of *Salivahanam* 637" (A. D. 71$\frac{4}{5}$). "He and his descendants, nine princes, and eleven persons of the same family, from *Pratapa Rudra* to *Viruppa Wodearu*, in all twenty princes, occupied the country for 461 years, till the year of *Salivahanam* 1068." (*A. D.* 1145).

N. B.—This *Pratapa Rudra* is evidently a very different personage from the prince destroyed by the *Mlechas* in 132$\frac{1}{2}$.

"Then in the intermediate time between the year of *Salivahanam* 1068, and the year *Paradavi* 1175 (*A. D.* 125$\frac{2}{3}$), for a space of 107 years, there was no person in the possession of the kingdom. Some of the servants of the *Bellala Rayas* strengthened themselves, and this *inter-regnum* was passed in one person's plundering another."

"In the year of *Salivahanam* 1175, being *Raridavi*, the devils (*Butagallu*) brought *Panda Raya* to the government of *Baracuru* kingdom, and gave him *Puttuvuncutty*, calling him by the name of *Buta Panda Raya*. He alone possessed the kingdom 42 years. Of the same family *Vir Pratapa Raya* governed 19 years, and *Deva Raya* 21 years. Total three princes 82 years."

"There had then passed of the era of *Salivahanam* 1257 years." *A. D.* 133$\frac{4}{5}$.

I have already mentioned the probable cause of the overthrow of the *Belalla* family's authority in *Tulava*. These servants of the king, who strengthened themselves, were according to *Ramuppa* the ancestors of the *Jain Rajás*, such as the *Choutar*, *Bangar*, *Byrasu Wodears*, &c., &c., who have in this journal been often mentioned; and of the truth of this, I think, there can be little doubt. When the king changed his religion, and assumed the name of *Vishnu Vardhana Raya*, as I have already related, these petty *Jain Rajas* refused to submit to his authority, or to pay any tribute. Many idle stories are told concerning the manner in which the *Buttagallu*, or devils, introduced *Panda Raya*, and rendered all the *Jain* princes subject to his authority. It would appear, that he came from *Pandava*, the district contiguous to Cape Comorin; and he is said to have introduced from thence the singular mode of succession that prevails in *Tulava*, as well as in *Malayala*. The *Raya Paditti* then proceeds thus:

"In this manner in the year of *Salivahanam* 1257, being the year *Yuva*, *Deva Raya Maha Raya*, of the family of *Buta Panda Raya*, commanded *Baracuru* kingdom. In the year *Dat'hu*, by the favour of *Sri Vidyarnaya Maha Swami*, the founder of *Vijaya-nagara* city, and the crowner of *Hari-hara Raya Deva Rayaru* delivered *Baracuru* kingdom to *Hari-hara Raya*. There had then elapsed of the era of *Salivahanam* 1258 years."

"From the year of *Salivahanam* 1258, being the year *Dhatu*, on

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Wednesday the 7th of the moon, in *Vaisakha*, after *Hari-hara Raya* were the following *Rayaru*."

Family of *Hari-hara*.

In the original here follows a *Slokam*, containing the first letter of every *Raja's* name, as the commencement of a word. It must be observed, that each of these princes is spoken of by the title of *Rayaru*, the *Karnataka* plural of *Raya*. This is the same word with the *Rylu*, or *Rayalu* of the *Telingas*, contracted by Mussulmans into *Ryl*, and commonly applied exclusively to the kings of *Vijaya-nagara*. In the south, however, every person of very high rank is spoken of in the plural number; and the princes of all the great dynasties that have governed *Karnata* are commonly called *Rayaru* by its native inhabitants.

"In this manner 13 *Rayaru* princes possessed the kingdom for 150 years."

Particulars.	Until the era of *Sal.*	Until the year of Christ.
15 years Hari-hara Raya	1273	$135\frac{0}{1}$
22 Buca Raya	1295	$137\frac{2}{3}$
31 Hari-hara Raya	1326	$140\frac{3}{4}$
4 Virapaksha Raya	1330	$140\frac{7}{8}$
1 Buca Raya	1331	$140\frac{8}{9}$
7 Deva Raya and Rama Raya	1338	$141\frac{5}{6}$
11 Virapaksha Raya	1349	$142\frac{6}{7}$
28 Deva Raya and Virapaksha Raya	1377	$145\frac{4}{5}$
4 Maruppa Raya	1381	$145\frac{8}{9}$
27 Rama Raya and Virapaksha Raya	1408	$148\frac{5}{6}$

"Total thirteen princes governed till the year *Crodi* for 150 years. It was then of the era of *Salivahanam* 1407." *A. D.* $148\frac{4}{5}$.

Although this is detailed with great minuteness, little reliance can be placed on its exactitude. From an inscription, a copy of which I presented to the Bengal government, we learn, that *Buca Raya* was king in *Salivahanam* 1297, *A. D.* $137\frac{4}{5}$, two years after the end of his reign according to the *Raya Paditti*. Another inscription, also presented to government, is in the reign of *Deva Raya*, and is dated in the year of *Sal.* 1332, *A. D.* $14\frac{09}{10}$, which agrees with the chronology of the *Raya Paditti*. In this last *Rama Raya* is stated to have reigned conjointly with *Deva*; but it is evident from the inscription, that he had not been admitted to partake in the royal dignity for some time after the other's accession. Another inscription, also procured by me, is dated in the year of *Sal.* 1352, *A. D.* $14\frac{29}{30}$ in the reign of *Pratapa Deva Raya*, son of *Vijaya Raya*. This also agrees with the chronology of the *Ráya Paditti*. This prince's father was never sovereign. Another inscription is dated in the year of *Sal.* 1400, *A. D.* $147\frac{7}{8}$, in the reign of *Virapaksha Maha Rayaru*. This also

agrees with the chronology of the *Raya Paditti*; but that mentions a *Rama Raya*, as governing along with *Virapaksha*, which is not countenanced by the inscriptions. It must, however, be observed, that these inscriptions seem to be among the *Hindus*, what the legends on the coins are among the Mussulmans; and so long as a nominal king is retained, all inscriptions and legends are made in his name; but the historian or chronologer must also mention the person actually possessed of the power of government; and *Rama Raya* was perhaps a minister, like the *Peshwa* at the *Poonah*, who confines his sovereign, the descendant of *Sevajee*, and governs the *Marattah* states with absolute authority. The general agreement between these inscriptions, collected in parts of the country very remote from the residence of *Ramuppa*, confirms beyond a doubt his account of the dynasty of *Vijaya-nagara*; and the accounts given of the great antiquity of that city by *Ferishta* must be looked upon as entirely fabulous. Of the actions which the princes of this dynasty performed, we have in that author's history of the *Deccan* several accounts, apparently strongly tinctured by zeal for the Mussulman doctrines. Owing to his corruptions of names, and probably owing to his frequently mistaking the general or minister for the sovereign (for *Raya* is a title applied to all *Hindus* of distinction, as well as to kings) we very seldom can reconcile his names with those of the *Raya Paditti*, or of inscriptions. He says, that in the year 1365 *Roy Kishen Roy* was king of *Beejanuggur*, and his ancestors had possessed the kingdom for 700 years. This was in the reign of *Buca Raya*, son of the founder of the dynasty and of the city. From the year 1398 to the year 1420 *Dewal Roy* of *Beejanuggur* is frequently mentioned. This may have been *Deva Raya* the First, who may have been employed as a general long before his accession in 1408. *Deo Roy* of *Beejanuggur* is mentioned in 1437 and 1443, and is no doubt *Deva Raya* the Second, who during these times was sovereign.

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Usurpers who governed at *Vijaya-nagara.*

As the two dynasties of the *Bhaminee Sultans*, and the *Rayarus* of *Vijaya-nagara* commenced nearly about the same time, their fall also happened at the same period. From *Ferishta* we have the following account of the manner in which the servants of the *Hindu* princes usurped their authority. *Hemraje*, or as he in one place is called *Ram Raje*, was minister of *Beejanuggur*. He was a man of abilities, and gained some advantages over the declining power of the *Bhaminee Sultans*. In order to protract his authority, he poisoned the young prince, son of *Sheo Roy*, and placed on the throne a younger brother. In making an excursion into the Mussulman territories, in the year 1492, he was met by *Adil Shah*, founder of the dynasty of *Beejapoor* (*Vijaya-pura*), and defeated. In this engagement the young *Raja* was killed, and *Hemraje* assumed sovereign power. It must be observed, that *Sheo Roy* is a manner of writing *Siva Raya*; and *Virapaksha* is one of the names of the god *Siva*. *Virapaksha Raya*, the last of the thirteen *Rayaru*, may therefore be meant by *Sheo Roy*: and *Hemraje*, or *Ram Raye*, the usurping

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minister, may be the *Rama Raya* mentioned in the *Raya Paditti* as conjoined in authority with *Virupacsha*. The dates agree very well. On his usurping sovereign authority, it is likely, that, as usual in India, he assumed some new name, and was called *Prouwuda Raya*, the name by which the first usurper is known among the *Hindus*. Of these the *Raya Paditti* gives the following account.

"From the year *Visua Vasu* of *Salivahanam* 1408 (*A. D.* 1485), the servants (*Cadaeavru*) of the *Rayaru*, being seven men, possessed the kingdom 103 years."

Particulars.	Till year of *Sal.*	Till year of Christ.
12 years Prouwuda Raya...	1420	$149\frac{7}{8}$
10 ditto Vira Narasingha Raya	1430	$150\frac{7}{8}$
12 ditto Solva Narasingha Raya	1442	$15\frac{19}{20}$
43 ditto Achuta Raya, and Krishna Raya	1485	$156\frac{2}{3}$
26 ditto Sadasiva Raya, and Rama Raya	1511	$158\frac{8}{9}$
"Total seven men and 103 years."		

Here, in the original, follows a *Slokum*, or *Anagram* on these seven princes. Among a set of usurpers struggling for authority, we cannot expect much regularity; and it is hardly possible, that two of them could unite exactly at the same time, reign together for 43 years, and then die together; but to a *Hindu* chronologist such difficulties do not present themselves as extraordinary. Several of these princes were men of abilities, and *Krishna Rayaru* was by far the greatest *Hindu* monarch that has appeared in modern times. Of this we need not require a stronger proof, than his living in the immediate frontier of the countries whose history *Ferishta* is writing, and yet his never being mentioned by that author. In his reign no victories over the idolaters were to be celebrated; and it would have been unbecoming a Mussulman to disclose the disasters of the faithful.

Government of the kings of *Vijaya-nagara* in *Tulava*.

The account given orally by *Ramuppa* of the manner in which this country was governed by the kings of *Vijaya-nagara* is as follows. *Hucca* and *Buca* were of the *Curuba* caste, the customs of which low tribe I have already described. They were of *Telinga* extraction; all the officers of their court were of the same nation; and the remaining *Rajas* of *Anagundi* still retain that language. When *Hucca* had assumed the name of *Hari-hara*, and became very powerful, the *Raja* of *Tulava* made a submission, in appearance voluntary, and did not attempt any resistance. It is not known what has become of his descendants; but they seem to have been entirely deprived of power; and *Hari-hara* appointed three deputies to command the military force, and to collect the revenue from the *Jain Rajas*, and other tributaries. The deputy, who resided at the former capital, *Barcuru*, or *Baracuru*, had the title of *Rayaru*; the

one who governed *Mangaluru* was styled *Wodear*; and an inferior 1801.
person governed the small district belonging to *Bagwady*. These Feb. 17.
offices were not hereditary. The *Jain Rajas* were confirmed in the hereditary possession of their territories, and were allowed for their support certain estates, called *Umbli* lands, free from revenue. They collected the revenues of the other parts of their territories, and paid them in to the deputy under whom they lived; and over all persons living within their respective territories they possessed most ample authority. Each supported a certain number of troops, with which in time of war he was bound to assist his liege lord. Their common title was *Mantana Devaru*. The *Mantana*, however, were not allowed to exercise any authority over the 32 *Gramas* which *Cadumba Raya* had bestowed on the *Bráhmans*. The revenues of *Cotta* and *Shiculi*, two of these, were collected by the officers of the deputies. The remaining thirty were under the government of an equal number of *Bráhmans*, who held their offices by hereditary right. These were called *Hegadis*, or *Baylalas*, and also enjoyed *Umbli* lands; but their jurisdiction was much less extensive than that of the *Jain Rajas*. They could not inflict capital punishment, nor confiscate a man's property, nor erase his house.

It would appear, that before the time of *Hari-hara* no land-tax existed in *Tulava*; and this country, after its rebellion from the *Belalla Rayas*, was probably in a state of anarchy and confusion similar to that of *Malayala* after its division among the captains of *Cheruman Permal*. The settlement and valuation made by *Harihara* is said to be still extant, and *Ramuppa* gives the following account of the plan adopted by that prince. The whole produce having been estimated, out of every thirty measures the government took 5, the *Bráhmans* got 1½, the gods 1, the proprietors 7½; and 15, or one-half, was allowed to the cultivator. The whole lands of the *Bráhmans* were valued in the same manner as the others; but the revenue was remitted on such part of them as was dedicated to the support of the temples, or of public worship. This system of revenue continues to the present day; only the shares of the god and the *Bráhmans* are supposed to have been taken by the government, who grant annual sums for the support of public worship; and the *Umbli* lands are now taxed, in the same as the others.

Concerning the usurpers of the throne of *Vijaya-nagara* I collected from inscriptions, copies of which I presented to the government of Bengal, the following information. From that which I procured at *Beiduru*, it would appear that *Jebila Narasingha Raya* was king in the year of *Sal.* 1429. This is probably the *Vira Narasingha* of the *Raya Paditti*, whose reign ended in the following year. In another inscription, *Achuta Raya Narasingha Raya*, and *Krishna Raya* are mentioned as sovereigns conjunctly. The copyist has made the date 1337, but he evidently ought to have made it 1437. From this it would appear, that *Achuta* and *Krishna* had been con-

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joined with their predecessor, *Solva Narasingha,* so early as the seventh year of his reign, although the *Raya Paditti* does not make their government commence until his terminated. In an inscription at this place, of which I have no copy, *Krishna Raya* is mentioned as sovereign in the year of *Sal.* 1445, or *A. D.* 152$\frac{2}{3}$. In another inscription, *Vira Pratapa Achuta Raya* is sovereign in the year of *Sal.* 1452, or *A. D.* 15$\frac{29}{30}$; and in another *Achuta Raya* and *Krishna Raya* are joint sovereigns in the year of *Sal.* 1454, or *A. D.* 153$\frac{1}{2}$. In another still, *Achuta Raya* is mentioned alone in the intermediate year 1453. With the long and glorious reign of these two princes the fortune of *Vijaya-nagara* departed. In another inscription at *Banawasi,* is mentioned a *Vencatadri Deva* as sovereign in the year of *Sal.* 1474, or *A. D.* 1551. This name is not to be found in the *Raya Paditti*; and *Vencatadri* was either some person struggling for the supreme authority, or some tributary who had entirely thrown off his allegiance. In another inscription *Vira Pratapa Sadasiva Deva Maha Raya* is mentioned as king in the year of *Sal.* 1477, or *A. D.* 155$\frac{4}{5}$; and he is again mentioned in another inscription as king, and as son of *Achuta Raya.* The date to this inscription is *Sal.* 1412; but that is an evident error in the copyist, and it must be in the original 1512. This, it is true, according to the *Raya Paditti,* is one year after the death of his colleague *Rama Raya,* and the destruction of *Vijaya-nagara;* but the representatives of this family still exist, and for a long time their rebellious *Polygars* continued to show an external deference for their dignity, although they refused all submission to their authority. Upon the whole, from these two inscriptions it would appear, that although *Achuta* and *Krishna* are mentioned as joint sovereigns, whose reign did nót terminate till *Sal.* 1485; yet *Achuta* died earlier, and was succeeded by his son *Sadásiva,* so early at least as *Sal.* 1477; but his name was obscured, by the lustre of his first colleague's reputation, till the death of this celebrated prince.

Probably owing to the reason which I have before mentioned, the account of these princes in *Ferishta* is extremely imperfect. He makes the first usurper to be succeeded by his son *Rám Rayé,* against whom three of the Mussulman princes united in 1564, and killed him in the first engagement. After which the capital city was destroyed, and each of the *Zemeendars (Polygars)* assumed in his own district an independent power. This account makes the destruction of *Vijaya-nagara* 24 years earlier than the end of the reign of *Rama Raya* according to the *Raya Paditti.* Which is in the right, I cannot say; but the matter may probably be decided by means of some of the numerous inscriptions that are to be found in the country. It does not appear clear, whether or not the line of *Hari-hara* has become extinct, nor whether the present *Rájá* of *Anagundi* be descended from him, or from one of the usurpers who seized on *Vijaya-nagara,* but who still continue to govern in the name of the royal family, as their servants.

Ramuppa now takes leave of the family of the *Rayaru*, and proceeds to given an account of one of the chief *Polygars*, who on the decline of *Vijaya-nagara* assumed independence.

1801. Feb. 17. *Rajas of Kilidi*, or *Ikeri*.

"Until the year *Dhatu* of *Salivahanum* 1510 (*A.D.* $158\frac{7}{8}$), *Sadasiva Raya* and *Rama Raya* possessed the kingdom, as servants of the *Rayaru*. In the mean while *Sadasiva Raya* gave to *Sadasiva Gauda*, son of *Baswuppa*, the *Gauda* of *Kilidi*, a government (*Subayena*) in *Karnataka Desa*, namely *Guty*, *Baracuru* and *Mangaluru*. These three towns were given into the possession of *Sadasiva Gauda*, and his name was changed into *Sadasiva Raya Nayaka*, after the name of the *Rayaru* who gave him the power *Suluntra* (of governing by a deputy), and put it into his possession. From the year *Durmuti* 1482 (*A. D.* $15\frac{59}{60}$), to the year *Chitrabanu* 1685 (*A. D.* $176\frac{2}{3}$), sixteen persons, styling themselves *Rajas* of *Kilidi* or *Ikeri*, possessed the government 203 years. Particulars."

"Seven persons governed 77 years, styling themselves servants (*Cadaevaru*) of *Vijaya-nagara*. Particulars."

"16 years *Sadasiva Nakaya*;" began to reign 1482. *A. D.* 1559.

"9 years his younger brother *Bhadruppa Nayaka*;" began to govern 1498. *A. D.* $157\frac{5}{6}$.

"11 years *Doda* (great) *Sunkana Nayaka*, the son of *Sadasiva Nayaka's* first wife." He began to govern 1507. *A. D.* $158\frac{4}{5}$.

"7 years *Chica* (little) *Sunkana Nayaka*, the son of *Sadasiva's* second wife." He began to reign in 1518. *A. D.* $159\frac{5}{6}$.

"1 year *Siduppa Nayaka*, son of *Chica Sunkana Nayaka*." He began to reign in 1525. *A. D.* $159\frac{2}{3}$.

"22 years *Vencatuppa Nayaka*, son of *Doda Sunkana Nayaka*." He began to govern in 1526. *A. D.* $159\frac{3}{4}$.

"This *Vencatuppa's* son, *Bhadruppa Nayaka*, and his son *Bhadruppa Nayaka*, governed for 23 years nominally as servants of the *Rayaru*, and 12 years as sovereign princes." They began to reign in 1548. *A. D.* $162\frac{5}{6}$.

"In all, as servants of the *Rayaru*, 7 princes governed 77 years."

"After this, from the year *Dhatu* 1559 (*A. D.* $163\frac{6}{7}$), till the year *Chitrabanu* 1685 (*A. D.* $176\frac{2}{3}$), nine *Rajas* gorverned in their own name 126 years. Particulars."

"The above mentioned *Bhadruppa Nayakas* 23 years; but, deducting 11 years before they governed independently, they reigned in their own name

"12 years." This began in 1559. *A. D.* $163\frac{6}{7}$.

"22 years *Sivuppa Nayaka*, son of *Chica Sunkana Nayaku*." He began to reign 1571. *A. D.* $164\frac{8}{9}$.

"10 years his eldest son *Bhadruppa Nayaka*." He began to reign 1593. *A. D.* $167\frac{0}{1}$.

"5 years *Hutso* (*Mad*) *Somasikhara Nayaka*, younger son of *Sivuppa Nayaka*." He began to reign in 1603. *A. D.* $168\frac{0}{1}$.

"12 *Doda Chinna Magi*, wife of *Somasikhara Nayaka*." She began to govern in 1608. *A. D.* $168\frac{5}{6}$.

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"16 years *Baswuppa Nayaka,* her adopted son." He began to reign 1620. *A. D.* 169⅞.

"26 years *Somasikhara Nayaka,* his eldest son." He began to reign 1636. *A. D.* 171¾.

"31 years *Budi* (wise) *Baswuppa Náyaka,* son of *Virabhadra,* younger brother of *Somasikhara.*" He began to govern 1662. *A. D.* 7¾.

" 2 years *Chinna* (little) *Baswuppa Náyaka,* adopted son of *Viru Magi,* widow of *Budi Baswuppa.*" He began to govern in 1675. *A. D.* 175⅔.

" 8 years *Somasikhara Nayaka,* another adopted son of *Viru Magi.*" He began to govern in 1677. *A. D.* 175⅘.

"In all, ten independent princes of *Kilidi* governed 126 years."

Ramuppa says, that *Doda Sunkana Náyaka* resigned his government to his younger brother, and undertook a pilgrimage to *Kási,* or *Benares.* From thence he went to *Dhely,* where he encountered and killed *Ancusha Khán,* a celebrated prize-fighter. On account of his gallantry he received many honours and lands from the king. The whole of these lands he gave in charity to the *Bráhmans,* and returned home, where he lived in retirement, without making any attempt to resume his authority. His younger brother, in return, left the government to his nephew. This nephew *Vencatuppa,* and his son and grandson, the two *Bhadruppa Nayakas,* being weak men, and mere cyphers, the whole business of the country was managed by their cousin *Sivuppa,* who acted as *Dalawai,* or minister. On their death without children, he succeeded to the sovereignty as lawful heir, and seems to have been the greatest prince of the house. It was he who finally reduced the *Jain Rajas* of *Tulava,* and added to the family dominions the whole province of *Canara*; for, on the overthrow of *Vijaya-nagara,* the *Jain Polygars* had assumed independence. His successor, *Somasikhara,* was mad, and during the paroxysms of his disease committed great enormities. He ripped up pregnant women with his own hands, and for the gratification of his lust seized every beautiful girl that he met. At length he was assassinated by a *Bráhman* named *Saumya,* who was one of his servants. The rank of the assassin did not save him, and he was put to death by the *Sivabhactars,* who were much attached to this family of princes, as being of their own sect, and which by this murder seems to have become extinct. *Doda Chinna Magi,* the widow of *Somasikhara,* assumed the government; but having no children, she adopted *Baswuppa,* the son of *Marcupa Chitty,* a *Banijiga* merchant of *Bideruru* (*Bednore*), where the seat of government then was. The male descendants of this adopted son also ended in *Budi Baswuppa,* who left two widows, *Chinna Magi,* and *Vira Magi.* The latter, although inferior in rank, being a bold woman, put her superior in confinement; and, having adopted a young man named *Chinna Baswuppa,* she governed in his name, and was called *Rani.* The publicity of her amorous intrigues was

so scandalous, that the young *Raja* ventured to remonstrate with her concerning this part of her conduct. He was immediately removed by a violent death, and a boy was adopted in his stead, and called *Somasikhara*. *Hyder*, taking advantage of the disgust occasioned by her immoral conduct, subjected to his own authority the dominions of the *Sivabhactars* of *Ikeri*, and shut up the *Rani* and her adopted son in the fort of *Madhu-giri* From thence they were taken by the *Marattahs*, but died before the purpose for which the *Marattahs* intended them could be carried into execution. The *Raya Paditti* proceeds thus: 1801. Feb. 17.

"In the year *Chitrabanu*, of *Salivahanam* 1685 (*A. D.* $176\frac{2}{3}$), on the 3d of the moon in *Maga*, on Friday at the 18th hour, the *Nabob Hyder Aly Khan's* troops took possession of *Bideruru* city; from which time this name was lost, and the place was called *Hyder Nagara*. This *Nabob Hyder Ali Khan* governed (that is to say the dominions of *Ikeri*) from *Chitrabanu*, of *Salivahanam* 1685, till the 3rd of the moon in *Paushya* of the year *Shobacrutu*, *Salivahanam* 1706 (*A. D.* $178\frac{3}{4}$), 20 years and 11 months." Mussulman conquest.

"From the same year *Shobacrutu*, till Saturday the last of the moon in *Chaitra*, of the year *Sidarti*, *Sal.* 1722 (*A. D.* $1\frac{799}{800}$), governed *Tippoo Sultan* 16 years, 3 months, and 28 days.

"On Monday the *Amávasya* in *Chaitra*, in the same year *Sidarty* 1722, the Company's forces took possession of *Sri Ranga Pattana*." British government.

It must be observed, that Saturday is the real date; but, that being an unlucky day, the *Bráhman* changes the day of taking possession into Monday. In order, however, to show that it was on the same day with the fall of *Tippoo*, he tells us, that the one event happened on the last day of the month and the other on the *Amavasya*, which is the same thing. Such discordances therefore in *Hindu* chronology must not be considered by the antiquary as any proof of either error or ignorance.

CHAPTER XVI.

JOURNEY THROUGH THE NORTHERN PARTS OF CANARA.

1801. Feb. 18. FEBRUARY 18th.—I went four cosses to *Batuculla*, which means the *round town*. A very steep barren ridge separates *Beiduru* from a fine level, which is watered by the *Combara*, a small slow running stream, that in several places is dammed up for the irrigation of the fields. Here was formerly a market (*Bazar*) named *Hosso-petta*, which General Mathews destroyed. After passing this level, I came to a very barren country, but not remarkably hilly. It is covered with stunted trees, and intersected by a small rapid stream, the *Sancada-gonda*, and farther on by a narrow cultivated valley. *Batuculla* stands on the north bank of a small river, the *Sancada-holay*, which waters a very beautiful valley surrounded on every side by hills, and in an excellent state of cultivation. At the public expense eight dams are yearly made in order to water the rice grounds. They are constructed of earth, and are only intended to collect the stream in the dry season. In the rains they would be of no use, and the violence of the stream would then sweep away the strongest works. The dams are repaired between the 17th of November and the 16th of December, and are carried away in the two months which precede the summer solstice. There are here many coco-nut gardens, and these in the best condition of any that I have seen in *Canara*. They are well inclosed with stone walls. Their produce is partly shipped for *Mangalore*, or *Raja-pura*, and partly sent to the country above the *Ghats*.

Batuculla. *Batuculla* is a large open town containing 500 houses. It has two mosques; one of which receives from the Company an allowance of 100 *Pagodas*, and the other half as much. These places of worship are situated in a quarter of the town inhabited by Mussulmans alone. Many of these are wealthy, and go on commercial speculations to different parts of the coast; but this is their home, and here they leave their families. In this part of the country there are no *Buntar*, nor does the language of *Tulava* extend so far to the north. In fact, *Batuculla* is properly in a country called *Haiga*; and the most common farmers are a kind of *Bráhmans*, named *Haiga* after the country, and a low caste of *Hindus* called *Halepecas*. There are here 76 *Gudies*, or temples belonging to the followers of the *Vyasa*. Last year the officers of revenue, being all *Bráhmans*.

Country called Haiga.

began by their own authority to levy money, under pretence of applying it to the support of these places of worship; but some of them having been flogged, and dismissed from the service, a stop was put to this dangerous practice, and the priests (*Pujaris*) must content themselves with voluntary contributions. Major Monro does not seem to have thought it necessary to be so liberal to the temples, as Major Macleod and Mr. Hurdis have been. I do not perceive that his economy has been attended with any bad effect; and his conduct, on the whole, seems to have gained the good opinion of every honest industrious man that lived under his authority.

1801. Feb. 18. Money levied for the support of public worship.

Thinking to obtain some information from the *Bráhmans* in a place where they were so numerous, I sent for some of them. They denied having ever been subject to the *Jain*, and said, that this and four other districts were each governed by an independent officer, sent immediately from *Nagara*, meaning the capital above the *Ghats*; for the present *Nagara* is a name of very recent origin. These four territories were *Shiraly*, *Chindawera*, *Garsopa*, and *Mirzee*, and each occupied the whole country from the sea to the *Ghats*. They afterwards confessed, however, that this was only during the government of the *Sivabhactars*; and that *Batucutla* formerly belonged to *Byra Devi*, a *Jain* princess, whose dominions extended almost to *Barcuru*, which belonged to a *Jain Raja* of the name of *Budarsu*. These *Bráhmans* having told me that at all their temples I should find inscriptions, I set out in search of them, and was a good deal disappointed to find none at the two chief *Gudies*; and I inquired at several others, but was informed that they had no such thing. In the course of my walk I met with two *Jain* temples of the kind called *Busties*, the only remains of sixty-eight that were formerly in the place. The one had an inscription dated in the year of *Sal.* 1468, A. D. $154\frac{5}{6}$, in the reign of *Runga-raya*. He is not mentioned in the *Raya Paditti*, but in the inscription is said to have been brother's son of *Krishna Raya*, by whom he was probably employed as a deputy. The date is toward the end of the time assigned by *Ramuppa* for the reign of *Krishna Raya*. At the other *Busty* is an inscription, dated *Sal.* 1479, A. D. $155\frac{6}{7}$, in the reign of *Sri Vira Sadasiva Raya*. A copy of this has been delivered to the Bengal government. From the *Pújari* of the *Busty*, one of the few *Jain* now remaining in the place, I obtained the following account.

Account of the country by the *Brahmans.*

Account by the *Jain.*

All the country between *Carcul* and *Cumty* belonged to a family of *Jain Rajas*, called by the common name of *Byrasu Wodears*; but each had a particular name, several of which the *Pújari* mentioned. The founder of this family, as we have already seen, was *Jenaditta*, a fugitive prince from the north of India. The last of these *Wodears* having no son, the greater part of his dominions was divided among his seven daughters, all of whom were called *Byra Devi*; and it is concerning them, that *Ferishta* has related an absurd fable. From these ladies *Barcuru* was taken by a *Jain* prince, whom the

1801. Feb. 18.

Bráhmans called *Budarsu.* The *Byra Devi* of this place built a fort, the ruins of which may still be traced. In her time the town was very large. During the war conducted by Lord Cornwallis it suffered much from a plundering band of *Marattahs,* but is again recovering fast. The *Pújari* showed me the ruins of a *Busty* built by one of the *Wodears.* The workmanship of the pillars and carving is superior to any thing that I have seen in India, probably owing to the nature of the stone, which cuts better than the granite in common use, and preserves its angles better than the common pot-stone, of which many temples are constructed. The quarry is four cosses to the eastward. The stone is what Mr. Kirwan calls *Sienite* in a slaty form, and consists of hornblende slate, with layers of white quartz, and a little felspar interposed. In some pieces these are occasionally wanting, and the plates of hornblende are connected only by fibres of the same nature crossing the interstices between plate and plate. In some places again, the plates are waved, somewhat like the layers of timber at a knot, and there the quantity of quartz and felspar generally exceeds that of the hornblende.

A fine stone.

Errors in the accounts of the *Brahmans* and *Jain.*

As the *Bráhmans* err in denying their former dependence on the *Jain,* and endeavour as much as possible to conceal the former existence of such odious infidels; on the other side the *Jain* go into the contrary extreme, and deny altogether the dependence of their *Rajas* on the kings of *Vijaya-nagara,* which from many inscriptions, and other circumstances, is quite indubitable. The *Belalla* family, who, till the time of *Vishnu Verdana Raya's* conversion, were undoubtedly *Jain,* probably governed their dominions, like other *Hindu* princes, by chiefs paying tribute, and holding their lands by military tenure. We have seen that, when their sovereign changed his religion, these chiefs threw off their allegiance, and continued in an independent anarchy, till subjected by *Buta Panda,* and soon after by *Hari-hara.* The princes of the throne of *Vijaya-nagara,* although favourers of the *Bráhmans* who follow *Vyasa,* did not venture to dispossess the *Jain Rajas,* but employed them as their vassals, both in the civil and military government of the country. When the government at *Vijaya-nagara* became weak under *Sadasiva,* and fell into utter contempt by the death of *Rama Raya,* the *Jain Rajas* again asserted their independence; and in the inscription here, dated in the year 155$\frac{6}{7}$, the *Byra Devi* no longer acknowledges any superior. It was at this time that *Sadasiva Nagaka* of *Kilidi* obtained a grant of *Tulava* from the king; and, taking advantage of the weakness of a female reign, he attacked the *Jain* without mercy. It must be observed, that the *Jain* are extremely obnoxious to the *Sivabhactars,* as they altogether deny the divinity of *Iswara;* but the *Bráhmans* who serve as priests (*Pujaris*) in this temple are favorites, although among the *Sivabhactars* they are not the order dedicated to the care of religion. In this part of the country the princes of *Ikeri* seem to have almost extirpated the *Jain;* but toward the south they met with a more

obstinate resistance, and made no considerable conquests there, until the government of *Sivuppa*, who reigned from 1642 till 1670, and had the management of public affairs from about the year 1625. Even he was obliged to permit the *Jain Rajas* of the south to retain their authority as his vassals; and until the more vigorous government of *Hyder* they continued in power.

1801. Feb. 18.

19th *February*.—*Honawera* being too far distant for two days journey with my cattle, I went a short stage of one coss and a half to *Shiraly*. The country, after ascending the little hill above *Batuculla*, is not steep; but much of the soil is very poor, in many places the *Laterite* being almost entirely naked. In some other places the soil is very good; and, although not level, a part of it has been formed into *Betta* land for the cultivation of rice; which confirms the account given by the people of *Haryadaka*, concerning the possibility of rendering all the hills of *Canara* arable. In general, however, they are considered as not fit for this purpose. At *Shiraly* is a river called *Shiralytari*, which comes from a temple on the *Ghats* that is named *Bhimeswara*. The tide comes up to *Shiraly*, a mile from the sea, and forces the traveller to swim his cattle. The banks at the ferry are rather stony; but round the village, there is much rice land, and good plantations of coco-nut trees. A great quantity of salt is made in the neighbourhood. *Shiraly* is a poor village, with three or four shops.

Feb. 19. Face of the country.

20th *February*.—I went three cosses to *Beiluru*, which signifies the *cleared place*, and is a common name in countries where the dialect of *Karnata* prevails. My tents were, however, pitched in a very stately grove of the *Calophyllum inophyllum*, which in this part of the country is much planted near the villages. It grows to a large size, especially in sandy places near the sea. The common lamp oil of the country is expressed from its seed, by means of a mill turned by oxen. It is here called *Hoingay*, the name by which above the *Ghats* the *Robinia mitis* is known. In *Tulava* and *Malayala* it is called *Puna*, by us commonly written *Poon*. I suspect that the *Poon* of the eastern islands is indifferent.

Feb. 20. *Poon*, or *Puna*, the *Inophyllum* of Linnæus.

From *Shiraly* to *Beiluru* the plain, between the sea and the low hills, varies in breadth from half a mile to a mile and a half. Its soil is in general good, and almost the whole of it is cultivated for rice; but few parts yield two crops annually. The sea-shore is skirted with groves of coco-nut palms, and the view is very beautiful. This plain is only watered by two small streams, the one of which is a branch of the *Shiraly*. Among the low hills are said to be, as usual, many narrow rice vallies. About three-quarters of a coss from *Beiluru* is *Murodeswara*, a temple standing on a lofty promontory that has been fortified, and at high water is insulated by a narrow channel. To the south of the promontory is a small bay sheltered by some rocks, which appear above the water, and afford protection to boats. Near this is a small village containing shops (*Bazars*). South-west from the promontory is a peaked island,

Appearance of the country.

1801. Feb. 20.

which I suppose is what our seamen call Hog Island: the natives call it *Jaliconda*. In the offing from *Murodeswara* is a very large rock; and still farther west an island, which I suppose is what the seamen call Pigeon Island. It seems to be five or six leagues from the continent, and is pretty high, with a flat top. By the natives it is called *Naytrany Guda*, which last word signifies a hill. They say, that it has trees, with a small stream of fresh water, and good landing on its western side. Its caves are frequented by many wild pigeons, whence the European name is probably derived. It is frequented also by boats for coral, with which its shores abound: and they likewise supply all the neighbouring continent with quick lime.

Worship of *Jetiga*.

To this island many people also go to pray, offer coco-nuts, and sacrifice to a stone pillar called *Jetiga*, which represents a *Buta*, or male devil. As this spirit is supposed to destroy the boats of those who neglect him, he is chiefly worshipped by traders and fishermen. On the continent there is another pillar called *Jetiga*; but as this devil is less troublesome than the one on the island, he receives fewer marks of attention.

Face of the country.

At *Beiluru* the inhabitants, living in scattered houses unprotected by forts, suffered much in the *Marattah* invasion; and there is not remaining above one half of the people that would be requisite to cultivate the ground. Owing to this cause, a great part of the coco-nut palms have died. A good tree is reckoned to produce annually 50 nuts. The rice lands near the sea, contrary to the common rule in *Malayala*, are reckoned more productive than those inland; but the soil here near the sea is not so sandy as that to the south, and the beach is quite firm; whereas to the south it is very heavy. The roads here are in general good; but that is entirely owing to the nature of the country, no pains having been bestowed on them by the natives. Every now and then the traveller comes to a river, hill, or rock totally impracticable for a carriage of any kind, and very difficult even for cattle that are carrying back loads.

Feb. 21.

21st *February*.—I went four cosses to the south side of the *Honawera* lake, and encamped in a coco-nut grove close by the ferry, which is above a mile wide, and without previous notice it is impossible to procure a conveyance capable of transporting cattle. The country from *Beiluru* to *Cassergoda*, about two miles from the ferry, is one of the most barren that I ever saw. It consists of low hills of *Laterite*, which extend down to the sea, and are almost destitute of soil. In some places a few stunted trees may be seen; but in general the rock is thinly scattered with tufts of grass, or of thorny plants. On the whole route there are only two narrow vallies. In these there are a few inhabitants, and a little good rice-land. On descending to *Cassergoda* the traveller enters a plain, which, after having been in the desert, looks well; but its soil is very poor, and it wants cultivators, especially to plant coco-nut palms, for which it is best fitted.

1801. Feb. 21. Lake of *Honawera.*

The lake is of great extent, and, like that at *Kunda-pura*, contains many islands, some of which are cultivated. It reaches almost to the *Ghats*, and in the dry season is quite salt; but it receives many small streams, which during the rainy monsoon become torrents, and render the whole fresh. By the natives it is commonly called a river, but lake is a more proper term. The lake abounds with fish; but many more are taken in the sea, and, when salted, form a considerable article of commerce with the inland country. Each fishing-boat pays annually to government from four to six *Rupees*.

Garsopa.

Garsopa is a district including all the lands on the south side of the lake, and part of those on the north. The chief town, of the same name, stood at the extremity of the lake on its south side. This is now in ruins, and ought to be distinguished from a fort of the same name above the *Ghats*, which is laid down by Major Rennell.

Honawera, or *Onore.*

Honawera, or *Onore*, as we call it, was totally demolished by *Tippoo* after he had recovered it by the treaty of *Mangalore*. It was formerly a place of great commerce, and *Hyder* had established at it a dock for building ships of war. In the lake remain the wrecks of some which were sunk by our troops, after the fort was taken by assault. There is now a custom-house at the place, and some poor people have made offers of rebuilding the town if government would assist them. Five shops only have been rebuilt, and these are not in the situation of the former town. Boats now come from *Goa* and *Raja-pura*; and from merchants who live scattered near the bank of the lake, they purchase rice, pepper, coco-nuts, *Betel-nut*, salt-fish, &c.

Pirates.

The piratical boats from the *Marattah* coast are a great impediment to commerce; they hover especially round Pigeon Island, and have even the impudence to enter the rivers and inlets of the coast. Eight days ago they cut out from this place two boats; fifteen days ago one boat from *Manky*; and five days previous to that a fourth from *Batuculla*.

Fortified Island.

A little way north from the entrance to *Honawera* lake is *Baswa Rasa Durga*, called by us Fortified Island. Its works were erected by *Sivuppa Nayaka* of *Ikeri*, and it contains coco-nut palms and plantain trees, with abundance of fresh water. Boats can occasionally go to it in the south-west monsoon; I imagine that vessels might even then find shelter in the channel between it and the continent. It produces the best quality of *Cavi*, or reddle, which is used by the natives for painting their houses.

The country called *Haiga*, or *Haiva*, formerly belonging to *Ravana.*

All the country, as far as *Gaukarna* inclusive, is called *Haiga*, and seems formerly to have been under the influence of *Ravana*, king of *Lanca*, or *Ceylon*. *Tritchenopoly* is said to have been the station of his most northern garrison on the eastern side of the peninsula. It is probable that on the west side his dominions extended much farther. Although a king governing the *Racshasa*, or devils, he seems to have been a pious *Hindu*, and four temples, dedi-

1801. Feb. 21.

cated to *Siva* in *Haiga*, are said to have been erected by him. Their names are *Mahaboleswara* at *Gaukarna*; *Muradeswara*, which I passed yesterday; *Shumbeswara*, on the south side of the lake; and *Dareswara*, half a coss from *Hulledy-pura*. He also built *Sujeswara*, which is in *Kankana*.

Feb. 22. Appearance of the country.

22nd *February*.—I crossed the inlet or lake, and went two cosses to *Hulledy-pura*, where the *Tahsildar* of *Honawera* resides. The road leads over a plain of rice-ground. The soil is poor, and much intersected and spoiled by creeks containing salt-water; this, however, might be easily excluded by dams. *Hulledy-pura* is an open town containing 352 houses, and is situated east from a considerable creek that runs through the plain. Its present name, signifying turmeric-town, was given to it by *Hyder*; for its original appellation, *Handy-pura*, signifying hog-town, was an abomination to the Mussulman.

Feb. 23.

23rd *February*.—I remained at *Hulledy-pura*, with a view of taking an account of the agriculture of the country, as an example of that which prevails in *Haiga*. I found most of the cultivators to be *Bráhmans*, cunning as foxes, and much alarmed concerning my intentions in questioning them on such subjects. Great reliance, therefore, cannot be placed on what they said, especially as their answers were very contradictory.

Tenures.

Most of the cultivated lands in *Haiga* are private property; but the hills and forests belong to the government. Every man pays a certain *Shistu*, *Caigada*, or land-tax, for the whole of his property *in cumulo*, and cultivates it in whatever manner he pleases. This prevents a traveller from being able to ascertain how far the tax is reasonable or oppressive. The proprietors are called *Mulugaras*, and are chiefly *Bráhmans*. Most of them cultivate their lands on their own account; but some let a part out to *Gaynigaras*, or renters; for *Gayni* signifies rent. Very few are encumbered with mortgages; the *Bráhmans* of *Haiga*, like most *Hindus*, being in many respects good economists.

Size of farms, and quantity of stock.

Those who keep twenty ploughs are reckoned very wealthy; men in moderate circumstances have from four to six; but a very great number possess only one plough. The *Bráhmans* perform no labour with their own hands. One of them says, that he has four ploughs, with eight oxen, and keeps four male and four female servants. The *extra* expenses of harvest and weeding amount to 20 *Morays* of rough rice. He sows 20 *Morays* on low land, and 2 *Colagas* on hill land, and has a coco-nut garden containing 200 trees.

Allowance for slaves.

In the farms of the *Bráhmans* most of the labour is performed by slaves. These people get daily 1½ *Hany* of rice: a woman receives 1 *Hany*. Each gets yearly 2½ *Rupees* worth of cloth, and they are allowed time to build a hut for themselves in the coco-nut garden. They have no other allowance, and out of this pittance must support their infants and aged people. The woman's share is nearly 15 bushels a year, worth rather less than 14¼ *Rupees*; to this if we add

her allowance for clothes, she gets 16¾ *Rupees* a year, equal to 1*l.* 16*s.* 8½*d.* The man's allowance is 22½ bushels, or 23¾ *Rupees*, or 2*l.* 3*s.* 0½*d.* 1801. Feb. 23.

A male free servant, hired by the day, gets 2 *Hanies* of rice. Both work from seven in the morning until five in the evening; but at noon they are allowed half an hour to eat some victuals that are dressed in the family as part of their allowance; and every caste can eat the food which a *Bráhman* has prepared. Wages of free servants.

The leases granted to tenants *(Gaynigaras)* are in general for from four to ten years. For each crop of rice they pay, for every *Moray* sown, 2 *Morays* of rice for land of the first quality; 1½ for middling land; and 1 *Moray* of rice for the worst land: out of this the proprietor pays the taxes. The proprietor ought to find security for the payment of the land tax. If he does not, a revenue officer is sent to superintend the harvest, to sell the produce, and to deduct the revenue from the proceeds. This is a miserable system, and one of a true *Hindustany* invention; as the person sent to collect the harvest received an allowance from the farmer; and thus one of the idle tatterdemalions that formed part of the clamorous suite of some great man had for a while the cravings of his appetite satisfied. If a man has given security, and fails in payment, on the third day after the term the security is called upon, and confined until the revenue is paid. The estate is never sold on account of arrears; and where the crop has failed from bad seasons, or other unavoidable causes, a deduction from the rent is generally allowed. Leases, rent, and land-tax.

Estates that pay 20 *Pagodas* as land-tax, sell for about 100 *Pagodas*. The same quantity of land may be mortgaged for 50 *Pagodas*. The lender gets the whole profits of the estate for interest; but, whenever the borrower pleases to repay the debt, he may resume his land. Value of est

Both these circumstances, of estates being saleable, and capable of being let on mortgage, show, that they are of more value to the proprietors than what might be esteemed as an adequate reward for the labour and expense of cultivation. This is also evinced by the number of disputes that happen concerning succession. These, in the first instance, are determined by the *Tahsildar*, with the assistance of a *Panchaity*, or assembly of respectable neighbours. The decision is sent to the collector, who, as he sees reason, either confirms it finally, or investigates farther into the matter. Here a man's sons generally divide the estate equally among them; but the eldest manages the whole, and they live altogether. When it comes to be divided among a number of cousins, owing to more than one brother of a family having children, the estate is commonly let, and the rent divided.

I measured three fields. The first containing 76,280 square feet, was rated in the public accompts at 3½ *Morays* sowing, which would make the seed at the rate of $2\frac{477}{1000}$ bushels an acre. The next plot measured 10,135 square feet, and was said to sow 8 *Hanies*, which is Quantity of seed required for an acre.

1801 Feb. 23. at the rate of $1\frac{4}{10}$ bushel an acre. The third plot measured 21,356 square feet, and was said to require 20 *Hanies* of seed, which is at the rate of $1\frac{688}{1000}$ bushel an acre. These agree so ill, that much dependence cannot be placed on the estimate; but, having no better grounds to proceed upon, I must take the average, or $2\frac{104}{1000}$ bushels as the seed required for one acre. This is nearly the same quantity with that used in the southern parts of *Malabar*; but much greater than would appear to be the case in Mr. Ravenshaw's district.

Divisions of rice grounds. In this neighbourhood there are three kinds of rice-ground; *Mackey*, *Bylu*, and *Caru*. The first is the higher ground, which gives only one crop in the year. The *Bylu* ground gives either two crops of rice, or one of rice and one of pulse. The *Caru* in the rainy season is so deeply inundated, that it cannot then be cultivated; and in the dry season gives one crop. The crop of rice produced in the rains is called *Catica*; that which grows in the dry season is called *Sughi*.

Quality and price of different rices. In the accompanying Table, several particulars, relative to the cultivation of rice are detailed. The rice raised on *Mackey* ground is of a very inferior quality to that raised on the lower fields, and is that which is given to slaves and day labourers. Its average price is 12 *Pagodas* a *Corge*, or 21¼ pence a bushel; while that of the other is 20 *Pagodas* a *Corge*, or 35½ pence a bushel.

Table explaining the cultivation of Rice at *Hulledy-pura*.

Kinds.	Soils for which each is fitted	Crop in which each is sown.	Months each requires to grow.	Produce after deducting Seed.					
				Of one *Moray* sown.			Of one acre.		
				Good crop.	Middling crop.	Poor crop.	Good crop.	Middling crop.	Poor crop.
				Morays.	*Morays.*	*Morays.*	Bushels	Bushels	Bushels
Hany Samy	*Mackey*	*Catica*	2½	6	4	2	19¾	13⅛	6½
Cochiga... ...	*Mackey*	*Catica*	2½	6	4	2	19¾	13⅛	6½
Aria	*Bylu*	*Catica*	4	10	8	8	33	26¼	13⅛
Huiluga ...	*Bylu*	*Catica*	5	10	8	8	33	26¼	13⅛
Cansu Surity	*Bylu* and *Caru.*	*Sughi*	4	12	9	9	39½	29½	16½
Chituca ...	*Bylu* and *Caru.*	*Sughi*	4	9	6	6	29½	19¾	13⅛

On *Mackey* land. The only mode of cultivation used here for *Mackey* land is that called *Mola*, or sprouted-seed. In the month preceding, and that following the summer solstice, when the rains commence, the field is ploughed five times in the course of fifteen days, and all the while the water is confined. Before the last ploughing it is manured with dung from the cow-house. After the ploughings the field is smoothed with the *Noli-haligay*, or plank drawn by oxen (Plate XXII. Fig. 58). It is then harrowed with the *Haligay*, which is the same with the *Halivay* of *Seringapatam* (Plate IV. Fig. 9); and at the same time roots and weeds are pulled out by

the hand. The water is then allowed to run off, and the prepared seed is sown broad-cast. If in three days any rain fall, the seed is lost, and the field must be sown again. For a month the water is allowed to run off as fast as it falls, after which it is confined on the rice until the crop is ripe. At the end of one moon and a half the weeds are removed by the hand. 1801. Feb. 23.

Management of the grain.

The straw is cut with the grain. That intended for seed is immediately thrashed, and dried seven days in the sun. That intended for eating is put in heaps for eight days, and defended from the rain by thatch. The grain is then either beaten off with a stick, or trodden by oxen; and for three days is dried in the sun. The whole is preserved in *Morays* or straw bags, and kept in the house, till it can be boiled, and cleaned from the husks; for the farmer here never sells rough rice *(Paddy)*. All the grain that is cut in the rainy season is boiled, in order to facilitate the separation of the husks.

Catica crop of rice on *Bylu* land.

The *Catica* crop on *Bylu* land is mostly sown sprouted-seed: a very little only is transplanted. The manner of preparing the seed here is, to steep the straw bag containing it in water for an hour twice a day. In the intervals it is placed on a flat stone which stands in the house, and it is pressed down by another. The large-grained seeds require three days of this treatment, and are sown on the fourth day. The small-grained seeds are steeped two days, and sown on the third. For the *Catica* crop on *Bylu* land the five ploughings are given at the same season as for that on *Mackey* land. After the fifth ploughing the field in the course of five days is manured, and ploughed again twice, having all the while had the water confined on it. The mud is then smoothed with the rake drawn by oxen; the water is let off, and the prepared seed is sown broad-cast. It is managed afterwards exactly like the crop on *Mackey* land; and, as it ripens toward the end of the rainy season, the straw is in general well preserved. The rice however, to enable the husks to be easily removed, must be always boiled.

Sughi crop of rice on *Bylu* land.

The *Sughi* crop on *Bylu* land is entirely sown sprouted-seed. In the two months following the autumnal equinox, the field is ploughed eight times, then manured with cow house dung, and ploughed a ninth time. It is then smoothed with the rake drawn by oxen, having been all the while inundated. The water is then drawn off by an instrument named *Cainully* (Plate XXV. Fig. 70), which is wrought by a man like a rake. Small furrows are then made in the mud, to allow the water to drain off thoroughly, which is done by a small wooden instrument named *Shirula* (Plate XXV. Fig. 69). In the month preceding the winter solstice the seed is sown. On the ninth day a little water is given; and, as the rice grows, the quantity is gradually increased. Till the end of the first month, the rain water in general is not expended; afterwards, by means of the machine called *Yatam*, the fields are supplied from small reservoirs and wells, or still more commonly from rivulets or springs, the water of which

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is raised by dams, and spread over the fields. These dams are very simple, consisting of earth and the branches of trees, with a few stones intermixed. The government in general is at the expense of making the reservoirs and dams.

Cultivation of rice on *Caru* land.

In the rainy season the *Caru* land is covered with water to the depth of from three to six feet; and on that account cannot be then cultivated. Afterwards it is cultivated exactly in the same manner as the *Bylu* land for the *Sughi* crop; and, although it yields only one crop in the year, the produce is not greater.

Cultivation of dry grains on *Bylu* land.

Upon some of the *Bylu* land, where there is not a supply of water for two crops of rice, a crop of some of the dry grains is taken in the *Sughi* season. The quantity of seed for all the kinds is the same. 2 *Colagas* for a *Moray* land, or $0\frac{292}{1000}$ bushel an acre.

Of the grains cultivated,

Ellu, or *Sesamum* produces 10 *Colagas*, or $1\frac{463}{1000}$ bushel an acre.
Udu, *Phaseolus minimoo*, R., produces 12 *Colagas*, or $1\frac{755}{1000}$ bushel an acre.
Hessaru Bily (white) *Phaseolus mungo*, produces 14 *Colagas*, or $2\frac{147}{1000}$ bushels an acre.
Pachy (green) produces 10 *Colagas*, or $1\frac{463}{1000}$ bushel an acre.

For all these, the ground is ploughed five times in the month which precedes the shortest day; but the *Hessaru* is sown fifteen days later than the *Ellu*, and the *Udu* fifteen days later than the *Hessaru*. Before the last ploughing, the field is manured with ashes. The seed is sown broad-cast, and covered with the rake drawn by oxen. A month after seed time, the weeds are removed by the hand. Cattle will eat the straw of all the three pulses, but it is reckoned a worse fodder than the straw of rice.

Sugar-cane.

Sugar-cane is raised on *Mackey* land; but four years must intervene between every two crops; and for the first two years after cane, the rice does not thrive. The kind of cane used here is called *Bily-cabo*, which above the *Ghats* is called *Mara-cabo*. Inland they cultivate the *Cari-cabo*, which above the *Ghats* is called *Puttaputty*. In the month preceding the vernal equinox, the field is dug to the depth of ten inches with the hoe called *Cutari*. It is then ploughed five times, and smoothed with the rake drawn by oxen. Channels for conveying the water are then made, parallel to each other, and at the distance of three cubits. They are about nine inches wide, as much deep, and raised a little above the surface, the field being level. The intermediate beds are formed into ridges perpendicular to the channels, and resembling those of a potatoe field when it has been horse-hoed. The field is then covered with bushes, grass, dry cow-dung, and especially with dried parasitical plants such as *Epidendra*, *Lemodora*, &c., and the whole of these are burned to ashes as a manure. On the third day after this the canes intended for planting are cut into pieces, each containing three joints, and these are soaked in water two days. Then in each furrow between two ridges are placed longitudinally two rows of these cuttings. Each piece leaves an interval of four inches between it and the next piece of the same row. The rows are placed near the bottom of the fur-

rows, and are slightly covered with earth; and the furrows are then filled with water. All this must be performed before the new year commences at the equinox. Next day the furrows are again watered, and this is repeated on the eighth day, and afterwards once every four days. Two months after planting the field is weeded, and the ridges are repaired with a small hoe called *Halucatay*. The field is then manured with ashes, and with mud taken out of places where water lies deep. After this the watering is repeated once in four days still the commencement of the rainy season, when the ridges are thrown down, and new ones formed at the roots of each row of canes. In nine months these ripen without farther trouble. The water is in general raised by the machine called *Yatam*, from wells in which it is found at the depth of from three to twelve feet from the surface. Three men are required to water and cultivate one *Moray* land, of which $1\frac{78}{100}$ are equal to an acre; but at the time they are so employed the farm requires little other work. The canes are very small, being from 2 to $2\frac{1}{2}$ cubits long, and about the thickness of a man's thumb. The juice is expressed by a mill, which consists of three cylinders moved by a perpetual screw. The force is applied to the centre cylinder by two capstan bars, wrought by six or eight men; and the whole machine is extremely rude. A *Moray* land produces 10 *Maunds* of *Jagory*, worth in all 5 *Pagodas*. This is at the rate of $4.\frac{33}{100}$ hundred-weight an acre, worth about 3*l*. 10*s*. My informants seem to have greatly under-rated the quantity of *Jagory*.

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In the very satisfactory answers which Mr. Read, the collector, has been so good as to send to my queries, he observes as follows: "As the land on which the sugar-cane is reared is all rice-ground, its cultivation might be increased to a very considerable extent; but not without lessening the quantity of rice, because, the market for sugar being neither so extensive nor so profitable, by any means, as that for rice, few farmers would be at the expense of levelling and preparing ground for sugar-cane only. They, probably, even now plant as much of their grounds with the sugar-cane as they think they can readily sell; but I do not think this cultivation will be ever much increased, because the late reduction in the export duties on rice, together with the increased demand for that article, make its cultivation of still more importance to the farmer than it was heretofore."

In this *Gramam* of *Hulledy-pura* there are 144 *Mulagaras*, or proprietors, whose estates in the revenue accompts are said to amount to $1443\frac{2}{3}$ *Morays* sowing, or $805\frac{3}{4}$ acres. They have besides, by actual enumeration, 7499 coco-nut palms, and 226 *Arecas*, young and old. The *Shistu*, or land-tax, is $1084\frac{5\frac{1}{2}}{10}$ *Bahadury Pagodas*, or 436*l*. 16*s*. 11*d*.

Betta, or hill-land.

The land called here *Betta*, or *Hackelu*, like the *Parum* of *Malabar*, is formed into terraces; but on these rice is not cultivated.

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The only crops that it produces are *Sesamum* and *Udu* (*Phaseolus minimoo*, Roxb). On this kind of ground, after the soil has been ploughed three times, and manured with ashes, these grains are sown broad-cast in the second month after the summer solstice. The seed is covered with a hoe called *Ella-kudali*. The produce is much the same as on *Bylu* land; but there are no means by which the extent of *Betta* ground can be estimated.

Cumri cultivation.

In the hilly parts of the country, many people of a *Marattah* extraction use the *Cumri*, or *Cotu-cadu* cultivation. In the first season after burning the woods, they sow *Ragy* (*Cynosurus*), *Tovary* (*Cytisus cujan*), and *Harulu* (*Ricinus*). Next year they have from the same ground a crop of *Shamay* (*Panicum miliare*, Lamarck.) These hills are not private property, and pay no land-tax; but those who sow them pay, for the right of cultivation, a poll-tax of half a *Pagoda*, or nearly 4*s*. On account of poverty, many of them at present are exempted from this tax.

I could here procure no satisfactory account of the garden cultivation, and shall not state what was said on the subject; but shall defer describing the gardens of *Haiga* until another opportunity.

Implements and cattle.

The only cattle in *Haiga* are buffaloes and oxen, about an equal number of each of which are used in the plough. This implement is here of the same form as that in the neighbourhood of *Seringapatam*. In *Haiga* they have no carts. Many of the cattle are imported from the countries adjacent to the *Ghats* near *Nagara*, and even these are of the poorest kind, nor are they larger than those of *Malayala* or *Tulava*. In the dry season, although fed with hay and straw, they are scarcely able to crawl. In the rainy season they grow fat, and strong, on the natural grass of the hills. Working oxen get the powder which separates from rice while it is beaten; buffaloes get the cake which is left after squeezing the oil from coco-nut kernels. The natives are ignorant that the cake which is formed in the same manner from *Sesamum* seed could be given to their cattle. Milk, and butter, or *Ghee*, are very dear, owing to the small number of cows, and their wretched condition.

Manure.

At night the cattle in every part of *Haiga* are kept in the house, where they are daily well littered with fresh materials. The litter and dung are carefully reserved, as a manure for rice-land; and the manure that is made from each kind of litter is kept in a separate dunghill. In the two months preceding, and in that following the winter solstice, the litter is dry grass, and the manure formed with it is called *Caradudu Gobra*. Dry leaves of every kind of tree, except those that are prickly, and those of the *Govay* (*Goa*) or *Anacardium occidentale*, Lin., are used as litter in the three following months, and form a manure which is called *Drayghena Gobrâ*. During the six remaining months, mostly of wet weather, the fresh leaves of trees are used for litter, and make a dung called *Hudi Gobra*, which is esteemed the best. The ashes of the family are kept in a separate pit, and are applied to different purposes. The

cakes made of cow-dung are little used as fewel in this part of the country; but, to increase the quantity of manure, the women and boys follow the cattle while at pasture, and pick up the dung. 1801. Feb. 23.

Weights. The *Seer* weight at *Hulledy-pura* is the same with that of *Mangalore*. It ought to weigh 24 *Bombay Rupees*; but, these being a scarce article with the shopkeepers, in their stead *Dubs*, or *Dudus*, are commonly used, and are somewhat heavier.

The *Maund* for the common articles in the market (*Bazar*)	=40 *Seers*,	or 24$\frac{[illegible]}{100}$ lb.
The *Maund* of pepper	=42 do	or 26$\frac{[illegible]}{100}$ lb.
of *Betel-nut*...	=45½ do	or 27$\frac{[illegible]}{100}$ lb.
of dry coco-nut kernels ...	=48 do	or 29$\frac{16}{100}$ lb.
of *Jagory*	=44 do	or 26$\frac{82}{100}$ lb.

Dry-measure. There are in use here two kinds of grain measure; one for the farmers, and one for the merchants. The basis of the farmer's measure is the *Hany*, containing 87¾ cubical inches.

2 *Hanies* =1 *Colaga*	=	Bushel 0·08163
20 *Colagas* =1 *Moray* or *Mudy* for common use	=	Bushel 1·632
22½ *Colagas* =1 *Moray* for sale.	=	Bushel 1·8136
15 *Colagas* =1 *Moray* for seed.	=	Bushel 1·224

The basis of the measure by which merchants deal is the *Sida* of 32½ cubical inches.

6 *Sidas* =1 *Colaga*	=	Bushel 0$\frac{907}{10000}$
20 *Colagas* =1 *Moray*, or *Mudi*	=	Bushel 1$\frac{814}{1000}$
30 *Morays* =1 *Corge*.	=	Bushel 54$\frac{419}{1000}$

The market (*Bazar*) *Mudy*, or *Moray*, and that of the farmers for sale, ought to be the same: but they differ $\frac{23}{1000}$ parts of a bushel. Any exact coincidence, however, cannot be expected from the rude implements which the *Hindus* employ in forming their measures. The different quantities that are called by the same denomination, when used for different purposes, seem to have been contrived with a view of increasing the difficulty of the government in acquiring a knowledge of the real state of the country.

Money. The common currency here consists of *Ikeri*, *Sultany*, and *Bahadury Varahas*, *Hoons*, or *Pagodas*; *Surat* and *Madras Rupees*, which are considered as of equal value, and pass for one quarter of a *Pagoda*; Silver *Fanams*, of the same kind as are current in *Malabar*, but here five and a half are only equal to one *Rupee*; and the *Any Dudu*, or elephant *Dubs*, coined by *Tippoo*, ten of which pass for one *Fanam*. The revenue is collected in a much greater variety of coins, according to a rate fixed by the collector, which private people also have adopted in their dealings; in forming it, therefore, due regard to justice has been observed.

Commerce. Having assembled the principal traders from the neighbourhood, they said, that in the government of *Hyder* the trade of *Honawera* was very considerable.

Pepper. The Company had established a factory, where they annually procured from above the *Ghats* about 750 *Candies* (520 lb.) of pepper,

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and 150 *Candies* the produce of the low country. The greater part of the pepper from above the *Ghats* was sold directly by *Hyder*. The chief of the factory contracted with individuals for the produce of *Billighy*, and of the low country, and advanced sometimes one-half, and at others the whole of the price, which varied from 110 to 120 *Rupees* a *Candy* of 520 lb. The merchants again began to make advances to the cultivators in the month after the autumnal equinox, which is about four months before crop season. These advances were always less in amount than what the merchant received from the Company; and the use of the balance, and two *Rupees* on each *Candy*, are alleged to have been all the profit which he received. The advances were not made to individuals; but the merchant gave a certain sum into the hands of some respectable *Gauda*, or chief of a village, who contracted to deliver a certain quantity of pepper at *Honawera*, at two *Rupees* a *Candy* less than the Company's price. What profits these *Gaudas* had the merchants do not know. There were no export duties; and nobody, except the Company, exported pepper.

Sandal-wood.

Hyder sold to the Company the whole of the sandal wood. None of it is produced below the *Ghats*; and the quantity then brought annually to *Honawera* was from two to three hundred *Candies* of 600 lb.

Cardamoms.

No cardamoms ever came this way.

Betel-nut or *Areca*.

All the *Betel-nut* exported from *Honawera* was the produce of the low country between *Batuculla* and *Mirzee*, and amounted annually to 1000 *Candies* of 560lb. worth 10,000 *Pagodas* (4034*l.* 19*s.* 7*d.*): of this the Company took a considerable quantity, both raw and boiled; and, for whatever they wanted, they had always a preference.

Coco-nuts.

The trade in coco-nuts, both whole, and in the state called *Copra* on dried kernels, was in the hands of individuals. The value annually exported was about 12,000 *Rupees* (1206*l.* 1*s.* 1½d.). Owing to the great number of inhabitants, rice was then imported; at present it is the chief article of export. There never were in this country any manufactures. The oppressions of the late *Sultan* soon destroyed the whole trade; and the merchants are now just beginning to appear from their lurking-places, or to return from the countries to which they had fled. The exports at present, besides rice, are a little pepper, *Betel-nut*, and coco-nut; which are purchased by boats from *Goà*, *Bombay*, and *Raja-pura*. The *Marattah* pirates are a great obstacle to the inhabitants building boats for the exportation of goods.

The present price of staple articles here is:

Rice for slaves, per *Corge Pagodas* ...	13
coarse...	15
fine...	22½
Betel-nut boiled, per *Candy*...	15
Betel-nut raw	11

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Coco-nut *Copra* per *Candy pagodas*...	10
whole per 1000	6
Black pepper, per *Candy*	30
Jagory of sugar-cane, *Maunds* 2½ ...	1

Feb. 24. Appearance of the country.

24th *February*.—I went a long journey, called four cosses, and encamped on the south side of a river opposite to *Mirzee*. About two cosses from *Hulledy-pura*, I came to a town named *Cumty*. It seems to have been formerly a place of some note. Its lanes are straight, and fenced with stone walls, and it has many coco-nut gardens. Twice it had the misfortune of having *Tippoo's* army encamped in its vicinity; and on both occasions it was burned down by some of the irregulars. On its south side is a plain, intersected by a salt water creek, which allows much salt to be made. The soil of the plain, which extends all the way from *Hulledy-pura*, is very sandy. For a coss north from *Cumty*, the ground is high, with very little cultivation; but a great part of it seems to be fit for being formed into *Mackey*, or at least into *Betta* land. Between this and the river is a very fine plain, called *Heyada*, from a small town near which I encamped. The low lands here are subject to being inundated by the swelling of the river, which frequently spoils the *Catica* crop of rice when the farmers attempt to cultivate it. The appearance of the farm-houses at *Heyada* denotes that the inhabitants are in a much more comfortable situation than is usual in India. The river called *Tary-holay*, abounds with fine oysters. At this place, which is three cosses from the sea, it is at this season about 600 yards wide. The tide and salt-water go up about three cosses farther. Its northern bank is high, and was formerly occupied by a fort and town called *Midijay*, corrupted by the Mussulmans into *Mirzee*, *Merzee*, and *Merjuan*. This place suffered much in a siege which it stood against *Hyder*; and in the oppressive government of his son it was entirely deserted. The river formed the northern boundary of the dominions of a *Jain* family, who resided at *Cumty*, and possessed the country as far south as *Honawera*.

Plantations.

There being in this neighbourhood many palm gardens, I assembled the cultivators, and obtained from them the following account:

Coco-nut.

In this part of the country the sandy downs near the sea are not much esteemed for the cultivation of the coco-nut. Here the farmers prefer the banks of salt-water inlets; and near these the rising grounds are generally planted, and the houses are built in the gardens. About towns, many gardens are enclosed with stone walls; in villages, the proprietors are contented with fences of earth, like those in *Malabar*. Once in two years the whole garden is dug, and fresh earth at the same time is spread throughout, by the industrious, to the depth of two inches; but lazy people allow only a little to the roots of each tree. The garden gets no other manure, except some salt to the young seedlings when these are transplanted. For six months in the year they must be watered once in

1801. Feb. 23. four days. A young tree, fit for transplanting, costs two *Dubs* (about a penny), and is set in place of an old one which has died; so that the garden is never suffered to decay. In a good soil, the trees when ten years old begin to produce fruit, but in bad soils they are much later. Common reckoning says, that a coco-nut palm lives 100 years; but some die at 20, and many at all intermediate ages. At all times plantains and *Yams (Dioscorea)* are raised in the coco-nut gardens. Rich people never draw juice from their coco-nut trees, except in one year when they are young. For some years before the young palms can bring the fruit to maturity, they produce flowers; but, by extracting juice for one year, their coming to perfection is hastened. If any disease happen to the tree, rich men, to give relief to the sickly plant, do not extract juice as is usual in some places, but with a sharp iron they bore a hole into the pith above the diseased part. Poor people, not being able to raise money to pay the wages of their workmen, give them annually a certain number of trees for extracting juice, with which they can procure a daily subsistence. This compels the poor man, once in four or five years, to take juice from his trees. Besides, although this practice soon kills the tree, it gives much more immediate profit, especially in poor soils. In good soils, the nuts are of equal value with the juice; as a good tree in such a situation gives on an average, 80 full grown nuts, worth 25 *Rupees* a thousand; and 100 trees in such a soil, good and bad, young and old, produce 3000 nuts, which is at the rate of three quarters of a *Rupee* for each. In an indifferent soil the same number of trees produce only 1000 nuts, which is only at the rate of a quarter of a *Rupee* for each; but the coco-nut trees, good and bad, produce each a *Rupee* worth of juice, one-half of which goes to the extractor, and one-half is clear profit to the proprietor. One man can collects the juice of forty trees, and his share of the produce, being 20 *Rupees* (2*l.* 0*s.* 3½*d.*), is reckoned a sufficient maintenance for a man, his wife and children; for the people who extract the juice of palms are of a very low caste.

Betel-nut or *Areca.* The *Betel-nut* gardens are cultivated, at a distance from the banks of rivers, in the upper ends of narrow vallies, which contain *Bylu* land. The best soil is red, and contains shining particles, which I take to be mica. This soil is called *Cagadala.* Next in value to this is *Gujiny*, which is a black loose earth. The worst soil is called *Betta*, and is a hard earth composed of decayed or broken *Laterite.* The *Cagadala* is found in the bottoms of the vallies at their upper end, and is watered from a small reservoir, whence the water sometimes runs off by sluices, and sometimes is raised into the channels by the machine called *Yatam.* The *Gujiny* is found very low and level, where the hills forming the valley begin to recede a little from each other. In such land the water at all seasons of the year stands in the ditches, but is of a quality pernicious to the *Areca*, which must be watered from springs or rivulets. The *Betta* land forms the upper parts of the declivities of the

hills, and must be irrigated, by the hand, with water drawn from wells that are dug in the valley below. The garden must be fenced with a wall of stone or mud, on the upper side of which a deep drain must be formed to carry off the water, which during the rainy season descends from the hills in torrents. In this respect the *Cagadala* requires most trouble, and its watering is more expensive than that of the *Gujiny*; yet, owing to its being more productive, it is more profitable. The produce of the *Betta* land is still smaller than that of the *Gujiny*, and its cultivation is attended with much more trouble; yet it is worth while to plant the whole that is near a man's house; for to a certain extent the family can perform the watering without great inconvenience. 1801. Feb. 24.

Immediately before the winter solstice, the nuts for seed are cut, and are exposed three days to the sun, and three nights to the dew. In the mean time, a plot of *Cagadala* soil is dug for a seed-bed. In this the seeds are placed at four inches distance, and are half immersed in the ground. They are then covered with dung; and, that having been covered with straw, they are watered every other day until the second month after the vernal equinox. The rainy season then commences; and a drain must be dug to prevent the water from lying upon the bed. In the first or second month after the autumnal equinox, another piece of ground is hoed, and in this are placed the nuts which are then said to be *Mola*, as they have shoots sprouting from them a cubit long. The nuts in this bed are placed at about the distance of a foot from each other, and are buried an inch under ground. Every other day, during the dry season, they are well manured and watered. In this bed they remain fifteen months; and in the month preceding the winter solstice, they are manured with dung made from dry grass-litter; while in the month following the vernal equinox, the manure, which they receive, is that formed of dry leaves. During the month before and the month after the autumnal equinox, the young palms are (*Sussi*) fit for planting.

The garden having been properly inclosed, and secured from the torrents of the rainy season; and tanks, wells, or canals for supplying it for water, having been formed; the *Cagadala* soil is levelled into terraces like rice-ground, and formed into beds seven cubits wide. Between every two beds is a deep channel, to carry off the rain water; and in the middle of each is a small channel to convey the water that is to refresh the palms; and which, as it runs along, a man throws out on their roots with a *spatha*, that has fallen from the trees. On each side of the bed is planted a row of the *Arecas*, distant from each other five cubits, and between every two *Arecas* is set a young plantain tree. The garden is then manured with dung made from fresh leaves, and ever afterwards during the dry season it must be watered once in two days. For the first four years, it must be dug over in the month preceding the autumnal equinox, and at three different seasons must be manured with the three different kinds of manure. Afterwards, it is manured once

1801. Feb. 24.

a year only, in the second month after the autumnal equinox; and it is once in two years only that it requires to be dug. The *Betel-nut* is improved by the plantain trees, which keep the earth cool and moist; and therefore these are always continued, except where it is intended to train up the *Betel-leaf* vine upon the *Areca*, which is the manner wherein that plant is here cultivated. In this case, in the tenth year, the plantain trees are removed; and in the second month after midsummer, five cuttings of the *Betel-vine*, each containing three joints, are placed round every *Betel-palm*, while one of their ends is buried in the ground. They are then manured with the leaves of the *Nelli* (*Phyllanthus emblica*). Immediately after the autumnal equinox, the ground round the young vines must be hoed, and manured with dung made from fresh leaves. Ever afterwards, it must be manured three times a year. As the vines grow, they must be tied up to the palms. In eighteen months they begin to produce leaves fit for sale; in the third year they are full sized; two years they continue to give a full crop; in the following year the crop is bad, and then the vines are lifted, and new ones are planted in their stead. The *Betel-palm*, or *Areca*, in *Cagadala* soil begins to ripen fruit in ten years, is in full crop at fifteen, and continues in perfection for thirty years. They then die; and as the old ones decay, new ones are planted. Each tree yields two bunches, which ripen at different times between the autumnal equinox and winter solstice. The produce of a hundred trees, young and old, is reckoned five *Maunds* of boiled nut, or thirty-five *Bazar Colagas* by measure of nuts in the husk, as they come from the tree. The five *Maunds* are one-fourth of a *Candy*, or 140 lb. The present price of boiled *Betel-nut* is fifteen *Pagodas*; each tree therefore, young and old, produces to the value of $3\frac{626}{1000}$ pence, or a hundred trees produce fifteen *Rupees*. The cultivators boil the *Betel-nut*.

Betel-leaf, or *Piper Betle.*

In *Gujiny* ground, in order to remove the water off the soil, the drains between the beds must be one cubit and a half deep. It is irrigated once in seven days only, from the same sources that supply the *Bylu* rice-ground. In this, plantains and *Betel-leaf* grow in the same manner as in *Cagadala* gardens. A hundred trees, young and old, on *Gujiny* ground, are reckoned to produce four *Maunds* of boiled *Betel-nut*, worth twelve *Rupees*.

On the *Betta* land no drains nor channels are required; but round the root of every palm a small bank is formed to confine the water, which is given once in two days. In such gardens, plantains, but not *Betel-leaf*, are reared. The trees in this soil do not come into full fruit till they are twenty years of age, and a hundred produce only two *Maunds* and a half of boiled nut, worth seven *Rupees* and a half. A man and his wife can manage a garden of 500 trees; some of which will grow on *Betta*, and a proportion on either *Cagadala*, or *Gujiny*, or on both. They require no assistance at crop season; but, unless the keeper be an active man, he will require some help when the garden is hoed. The expense of first planting a gar-

den is commonly reckoned 100 *Rupees* for every 500 trees; but in level situations it will be much less, and in steep places much more. Some people go to 50 *Pagodas* for 100 trees; or 2 *Rupees* for each. No value is put upon the future expense, which is merely that of the keeper and his wife, who get $2\frac{3}{4}$ *Hanies* of coarse rice daily, and 4 *Rupees* a year for clothing; that is to say, $37\frac{1}{4}$ bushels of rice, worth $32\frac{852}{1000}$ *Rupees*, and 4 *Rupees* in money; or in all 36 *Rupees* 13 *Annas* (3*l*. 14*s*. 3*d*.) It must be observed, however, that after the first year the plantains are adequate to the defraying of this expense, which is therefore not charged in the accompt. The farmer has therefore, on an average, 50 *Rupees* a year, for an original advance of from one to two hundred; but out of this must be deducted the revenue. His profit is much larger where he has a sale for *Betel-leaf*. It appears to me, that the gardens here are formed with more care, and at greater expense, than in *Malabar*, where a colony of *Haiga Bráhmans* would be highly beneficial. 1801. Feb. 24.

25th *February*.—In the morning, having crossed the river, I took a circle of about six miles into the country east from *Mirzee*, in order to see some forests that spontaneously produce black pepper. The whole of the country through which I passed was hilly; but I met with several narrow vallies well watered, though not fully cultivated, owing to a want of inhabitants. Many of the hills were so barren, steep, and rocky, that I was soon forced to dismount from my horse, and proceed on foot. These hills consist entirely of naked *Laterite*. Other hills, which were those I sought after, were covered with stately forests. Feb. 25. Face of the country.

The pepper-plant (*Piper nigrum*) seems to grow spontaneously on the sides of all the narrow vallies in the interior of *Haiga*, where the soil is so rich and moist as to produce lofty trees close to each other, by which a constant coolness is retained. In such places the pepper-vine runs along the ground and the roots of bushes, and propagates itself entirely by striking its roots into the soil, and then again sending out new shoots. The natives say, that without assistance it cannot ascend a tree; and that, unless it is exposed in such a situation to sun and air, it never produces flowers. In order to procure fruit from a hill which spontaneously produces the pepper-vine, the proprietor cuts all the underwood and bushes, and leaves only the large trees, and a number of the young ones sufficient to exclude the violence of sun, but to allow of a free circulation of air. Four cubits from tree to tree is reckoned a proper distance. The ends of the vines, which were lying on the ground, are then tied up to the nearest trees. Any kind of tree answers the purpose; but those of about eight inches or a foot in diameter are preferred, as it is easy to climb such for the purpose of gathering the pepper. A quantity of leaves are then placed round the root of the vine, to rot, and to serve as a manure. In the course of the year the vine, so far as it has been tied, strikes its roots into the bark of the tree; but the hoots above that, hang down. Twice a year afterwards these are Pepper growing spontaneously.

1081. Feb. 25. tied up, and strike root, till they spread over all the large branches of the tree. In places where no vines have naturally sprung, the owner, after having dug a small spot round the tree to loosen the earth, propagates them by planting slips near the roots of the trees on which he wishes them to climb. The early part of the rainy season is the time proper for this operation. In five years, after having been managed in this manner, a hill begins to produce fruit, and in eight years is in full bearing. The vines live about thirty years; when others, that are found creeping on the ground in their natural state, are tied up in their stead; or, where these happen to be wanting, shoots or cuttings are planted near the trees. There is no difference in the quality between the pepper springing spontaneously from the seed, and that growing from cuttings; nor is the pepper growing in gardens either better or worse than that growing on a hill, managed as I am now describing. These hills producing pepper require no trouble, but the tying up of the plants, keeping the forest clear of underwood, and collecting the pepper. They are manured in the following manner. In the month succeeding the vernal equinox, a hole three or four inches above the ground is made into the trunk of any very large tree that is situated near the top of the hill. Into this are put some burning coals, and, for an hour, a fire is kept up with fresh fewel. After this, the tree will burn inwardly for two days, and is then killed. A large insect immediately takes possession of the trunk, and works its nest into the wood. In the next rainy season, the whole falls down into a rotten dust, which the rain washes away, so as to disperse it over the face of the hill below. The crop season commences about the winter solstice, and it continues rather more than two months. A man can in one day gather three *Colagas*, farmer's measure, or almost one peck of the *amenta*. These are dried three days in the sun, and then are rubbed with the feet on a piece of smooth ground, to separate the grains; which, having been cleared from the husks and foot-stalks, are again dried two days in the sun, and tied up for sale in straw bags or *Morays*. Seventy-five *Colagas* of *amenta* are required to make one *Bazar Moray* (bushel $1\frac{8}{10}$) of dry pepper, which weighs 3 *Maunds* (about 84 lb.); so that a man daily collects about $3\frac{15}{23}$ lb. of dry pepper. These hills were formerly valued; and according to their extent, each paid as a land-tax so many *Maunds* of pepper, the *Maund* containing 60 *Seers*. The same valuation is now continued; but the *Maund* is reduced to 40 *Seers*, and converted into money, at the rate of a *Pagoda*, which is in favor of the proprietor. Still one half of these hills is waste, owing to a want of hands to cultivate them; and on that account three-fourths of the revenue are remitted to the proprietors, who are also favoured by having all the rice-ground lying among these hills free from tax. This has been given them, on a supposition that its produce was only adequate to feed the people who are employed in cultivating the pepper.

So far as I went, no *Teak* grows in these forests; but I am told, that it is procurable farther inland. The landlords (*Malugaras*) pretend, that all the timber trees are their property, but that none of them are saleable. 1801. Feb. 25. Produce of the forests. *Teak.*

The wild nutmeg and *Cassia* are very common. As the nutmegs ripen, the monkeys always eat up the outer rind, and mace; so that I could not procure one in a perfect state. They are collected from the ground, after having been peeled by the monkeys, and are sold by some poor people to the shopkeepers; but they have little flavour; and the demand for them is very small. Although they are, doubtless, of a distinct species from the nutmeg of *Amboyna*, it is probable, that by proper cultivation and manure their quality might be greatly improved; and that, in the situations where they now grow spontaneously, they might be reared as the supporters of the pepper vine; which would produce copiously, and of an excellent quality, were the same pains bestowed on it here as is done in the gardens above the *Ghats*, where by far the best pepper grows. Nutmeg.

The *Cassia* belongs to government, and is in general given in lease; but at present no renter can be procured. Its quality also might, no doubt, be greatly improved; and by cutting the shoots, when of a proper size, and cleaning and rolling up the bark neatly, it might be made equal to the *Cassia* of *China*. *Laurus Cassia.*

On my return from the pepper hills to *Mirzee*, I passed a very fine plantation of *Betel-nut* palms, belonging to four *Bráhmans*, and containing many thousand trees. It was placed on the two steep sides of a very narrow valley, well supplied with water from springs. Here I observed the first regular *strata* since leaving *Pali-ghat*. They consisted of very soft pot-stone, probably impregnated with hornblende slate, as they seem to be a continuation of the quarries of slaty sienite, from which the temples at *Batuculla* have been supplied with stone. I have already noticed the affinity that prevails between the hornblende and pot-stone rocks in the dominions of *Mysore*. The *strata* at this garden are vertical, and run nearly north and south. *Strata.*

Having returned to *Mirzee*, I went two cosses and a half to *Hirigutty*. Part of the country through which I passed was very barren, consisting of low hills covered with stunted trees. The soil of other parts was good; but, owing to a want of inhabitants, was much neglected. Near *Hirigutty*, there is on the northern side of the river a remarkably fine plain. It does not seem to be well cultivated, and has suffered lately from the breaking down of a dam, which has permitted a great part of it to be inundated with salt-water. Appearance of the country.

At *Hirigutty*, I collected several *Haiga Bráhmans*, who were said to be the best informed men concerning the history of the country. The *Shanaboga*, or accomptant of the temple of *Dareswara*, produced a book called *Bahudunda*, which, they said, was written by a certain *Subahitta*, or *Brahmany* chief, who will hereafterwards be History of *Haiga* according to its *Brahmans.*

1801. Feb. 25. mentioned. On the authority of this book the *Shanaboga* said, that *Parasu Rama* created *Haiga* at the same time that he formed *Tulava* and *Malayala*, and he then also appointed certain *Bráhmans* to inhabit these lands. *Tulava* he gave to the *Mittu Bráhmans*, and *Haiga* to those called *Nagar* and *Matchy*. These people were not true *Bráhmans*; but they kept possession of the country till after the commencement of the *Kali-yugam*. The country was then seized upon by two castes of impure origin, the *Mogayer* and the *Whalliaru*. The former are the fishermen of *Haiga*; the latter I have had frequent occasion to mention; and to this tribe the *Raja* belonged. At length a *Sannyasi*, who had visited the country, induced *Myuru Varma* to invade it. He was king of *Banawasi* and *Gutti* in *Karnata*, and by caste a *Baydar*, which is a tribe of *Telingana*. His attack was successful, and he conquered *Haiga*, *Tulava*, and *Kankana*. He then brought a colony of five thousand true *Bráhmans* from *Ahichaytra*, a city in *Telingana*, and settled them in *Haiga*. He brought others of the same origin to *Kankana* and *Tulava*. A thousand of these *Haiga Bráhmans* lost caste immediately, having omitted the performance of certain prayers (*Mantrams*) which were necessary to purify the country before they took possession. The remaining four thousand obtained the whole lands of *Haiga*, and continued to enjoy them until *Myuru Varma* was obliged to fly by *Nunda*, the son of *Utanga*, one of the *Whalliaru*, who recovered the dominions of his ancestors. This low fellow seized on the lands that had been granted to the four thousand *Bráhmans*, and forced them to retire to *Ahichaytra*. He was succeeded by his son *Chanda Sayana*, whose mother, being a dancing girl from the temples of *Karnata*, had educated him so as to have a due respect for the sacred order. Soon after his accession to power, he invited back the *Bráhmans*; and, having given up the whole of his authority to their *Subahitta*, or chief, the author of the book, he made all his *Whalliaru* the slaves of the sacred order. So long as *Chanda Sayana* lived, he was called *Raja*, and the *Subahitta* continued to govern in his name. On his death without children, the *Subahitta* was at a loss what to do; as according to the laws of his caste he could not assume the regal title, and as there was no *Raja* under whose authority he could act. He therefore invited *Solva Krishna Devarasu Wodearu* of *Anagundi* to take possession of *Haiga*, which had never before been subject to *Vijaya-nagara*. This prince accordingly came; but, far from allowing the *Subahitta* to enjoy any authority, he imposed a land-tax on the *Bráhmans*, and gave all the country to a *Jain Polygar*, *Itchuppa Wodear*, *Raja* of *Garsopa*. No date is assigned in the book for these extraordinary events, which nobody but a *Haiga Bráhman* can possibly believe. In order to conceal the long subjection to the infidel *Jain*, in which the *Bráhmans* of *Haiga* had been compelled to live, they bring down the time of *Myuru Varma* to that of the latter princes, or usurpers of the throne of *Vijaya-nagara*. Many inscriptions render it indubit-

able, that *Haiga* belonged to the kings of *Karnata* long before the 1801
time of *Krishna Ráyalu*. Copies of all these, which I now quote, Feb. [illegible]
were in the possession of the very *Bráhmans* who gave me the foregoing account. The temple at *Dareswara* has two grants engraved on copper-plates. The one is dated *Sidarti* of *Sal.* 1422, on the 14th of the moon in *Bhádrapada*, in the reign of *Deva Raya Wodearu Trilochia*, &c. &c. This title of king of the three people (*Trilochia*) is said to be peculiar to the kings of *Vijaya-nágara*, as is also the title of king of the three seas. The title of *Trilochia* seems well enough applied, as these princes governed the tribes who speak the *Telinga, Tamul*, and *Karnataca* languages. This date apparently does not agree well with the *Raya Paditti*; for the last *Deva Raya*, which it mentions ended his reign in the year of *Sal.* 1377. But, as we shall afterwards see, the *Deva Raya* may have been one of the names of the usurper who reigned in 1422. The other grant on copper is by *Solva Krishna Devarasu Wodearu Trilochia*, &c. &c., and is dated *Sal.* 1481, on the 15th of *Ashadha*, in the year *Calayucti*. This agrees very well with the chronology of *Ramuppa*. A third grant to the same temple is by *Krishna Devarasu Wodearu Trilochia*, &c. &c., in the year *Vicari* of *Sal.* 1462, on the 1st of *Kartika*. This also agrees with the chronology of *Ramuppa*. Another, in the time of *Trinetra Solva Narasingha Nayaka*, king of the three seas, and of *Anagundi*, &c. &c., is dated in *Durmati Sal.* 1424, 14th *Bhadrapada*. Among other strange titles assumed by this prince, he is said to be able to pull all other potentates by the whiskers. In it he commands *Devarasu Wodear*, probably the lieutenant of *Haiga*, to grant such and such lands to the *Bráhmans*. It is clear therefore, that before the time of *Krishna Rayaru*, the kings of *Anagundi* were sovereigns of *Haiga*, and that all the lands did not belong to the *Bráhmans*. Another grant, for erecting an inn for travellers, is dated on the same day and year, and by order of *Solva Deva Raya Wodearu*, *Raja* of *Nagara* (not the present *Nagara*, but *Vijaya-nagara*), *Haiga*, *Tulava*, *Kankana*, &c. &c. We here find, that the second *Narasingha* of the usurping princes is sometimes called also *Deva*; and the same probably was the case with the first *Narasinga*, which will reconcile the chronology of the first grant with that of *Ramuppa*. The inscription on stone at the temple of *Gunavunti*, in *Garsopa* district, of which a copy has been presented to the Bengal government, mentions, that *Itchuppa Wodearu Pritani* (*Jain Raja* of *Garsopa*) granted certain lands to that temple by order of *Pritapa Deva Raya Trilochia*, &c. &c.*, of the family of *Hari-hara*, &c. &c., in *Virodi Sal.* 1332, on the 10th of *Margasirsha*. This is *Deva Raya* the First, and agrees very well with the chronology of *Ramuppa*.

A very intelligent *Bráhman* from *Batuculla* says, that he had [illegible]
consulted a book in the possession of a *Jain Sannyasi*, which stated, [illegible]
that the *Byrusu Wodear* family of *Carculla* was descended from the *Belalla Rayas*, the supreme kings of *Karnata*. The last male of the branch of the family had seven daughters, all called [illegible]

1801. Feb. 25. When the *Raja* died, his country was divided among his daughters in seven portions; and *Krishna Rayaru* was so gallant, as to remit the whole tribute to them, as being ladies. The eldest sister, *Doda Byra Devi,* lived at *Batuculla.* The second sister married the son and heir of *Itchuppa Wodear* of *Garsopa,* who seems to have been the tributary *Raja* of *Haiga.* This marriage produced only one daughter; and none of her aunts having had children, she united again in her person the sovereignty of all the dominions of *Carculla.* To these she added *Haiga*; and, during the weakness of the princes of *Anagundi,* in the reign of the last usurper, she seems to have refused all marks of submission to their authority. She lived sometimes at *Garsopa,* and sometimes at *Batuculla,* until she was destroyed by the *Sivabhactars* of *Ikeri,* who were assisted by an insurrection of the *Halypecas*; and who, in conjunction with that low, barbarous tribe, almost exterminated the *Jain* of *Haiga,* and the northern districts of *Tulava.* There is still a man living at *Dharmastilla,* six cosses distant from *Jamal-abad,* who is named *Comara Hegada,* and who is looked upon as a descendant in the male line of the *Carculla* family, and legal representative of the *Belalla Rayas* who began to govern *Karnata* in the year of our Lord 684. This man may very probably be of the family of the *Carculla Rajas*; but, in fact, these were descended from *Jenaditta,* a fugitive from the north of *India*; and a desire of flattering the princes of the *Jain* sect, who were the most powerful in these latter days, probably occasioned the legend, in the book of the *Sannyasi,* to trace up their origin to the *Belalla* family.

Hirigutty, which has no market (*Bazar*), stands on a fine plain, about two miles from the river; and at some distance, toward the east and north, has rugged barren hills.

Feb. 26. Appearance of the country. 26th *February.*—I went three cosses to *Gaukarna.* There was a thick fog, which prevented me from seeing the country; but near the road it was a plain, consisting mostly of rice fields; many of which, by the breaking down of the bank, had been inundated with salt-water. At the western extremity of this plain is a ridge of low barren hills, which bend round to the sea, and separate the plain on the banks of the river from that on which *Gaukarna* stands, about a coss north from the mouth of the river. The plain of *Gaukarna* is well cultivated, and consists of rice fields intermixed with coconut gardens.

Gaukarna. *Gaukarna,* or the cow's horn, is a place of great note among the *Bráhmans,* owing to a celebrated image of *Siva* called *Mahaboleswara.* The image is said to have been brought from the mountain *Coila* by *Ravana,* king of *Lanca.* He wished to carry it to his capital; but having put it down here. the idol became fixed in the place, where it stands to this day. The building, by which the idol is at present covered, is very mean. *Gaukarna* is a scattered place, buried among coco-nut palms; but enjoys some commerce, and contains 500 houses, of which *Bráhmans* occupy one half.

I assembled the most distinguished of these *Bráhmans*, who informed me, that the book produced yesterday by the *Shanaboga* of *Dureswara* is not considered by them as of good authority. That every *Shanaboga* has a *Bahudunda*, containing the papers and deeds belonging to his office, and which are generally preceded by such an account of past times, as the first person of the family who enjoyed the office could obtain. These *Bahudundas* the *Vaidika Bráhmans* hold in great contempt; but, as the office of *Shanaboga* has in numerous instances continued for many generations in the same family, I am inclined to think that from this source much historical information might be procured. The *Bráhmans* here are all *Smartal*, of true *Panch Dravada* extraction, and despise the *Haiga Bráhmans*, as being greatly their inferiors. When I interrogated them concerning the history of the country, they said that it was contained in a book in their possession, called *Seinghadri Utracunda*, or the second volume of *Seinghadri*, a work composed by God in the form of *Vyasa*, who wrote the eighteen *Puranas*. They suppose, that this was done long before the creation of this part of the world, and therefore look upon all the historical part as entirely prophetical. I found that none of them had ever been at pains to read the book, and they therefore spoke of its contents merely from report, or tradition. They say that it brings the history of *Kérala, Tulava, Haiva* (the *Sanskrit* name for *Haiga*), and *Lankana*, no lower down than the time of *Myuru Varma's* grandson. It is written in the character of *Tulava*, which is the same with that of *Malayala*, and in the *Sanskrit* language. It contains no dates, and seems to be, as usual, an idle rhapsody, in which are foretold the great deeds of five princes of one family, who were to be great favourers of a certain sect of *Brâhmans*. These five princes are *Trenetra Cadumba, Hœmanga, Myuru Varmá, Locadita*, and *Chanda-Sayana;* which last the *Haiga Bráhmans* suppose to have been a *Whalliaru*. The dominion of these princes extended all over the country created by *Parasu Rama*, from *Cape Comorin* to *Surat*. In all this country, at the accession of *Myuru Varma*, there was no true *Bráhman*; but for each division of it that prince brought a colony from *Ahichaytra*. The *Namburis* formed one of these colonies, all of which have in some measure lost caste, or at least have been degraded, by a disobedience of the orders of *Sankara Achárya*. At that time, the *Raja* of *Ahichaytra* was a *Jain*; but he favoured the *Bráhmans* who followed *Vyása*, his wife's mother having been very intimate with one of these persons, and having educated her daughter in a due regard for the sect. Shortly before that time, this sect had risen into considerable reputation in *Andray*, by the efforts of *Buta Achárya*, and was afterwards spread throughout the peninsula by the teaching of the three great doctors *Sankara, Rama Anuja*, and *Madua*. These *Smartal Bráhmans* possessed a grant of lands engraved on a plate of copper. It is dated *Serrajittu* of *Sal*. 1450, in the 20th of *Maga*, and in the reign of *Krishna Raya*, which agrees

1801. Feb. 26. Account of *Haiga* by the *Bráhmans* of *Gaukarna*.

1801. Feb. 26.

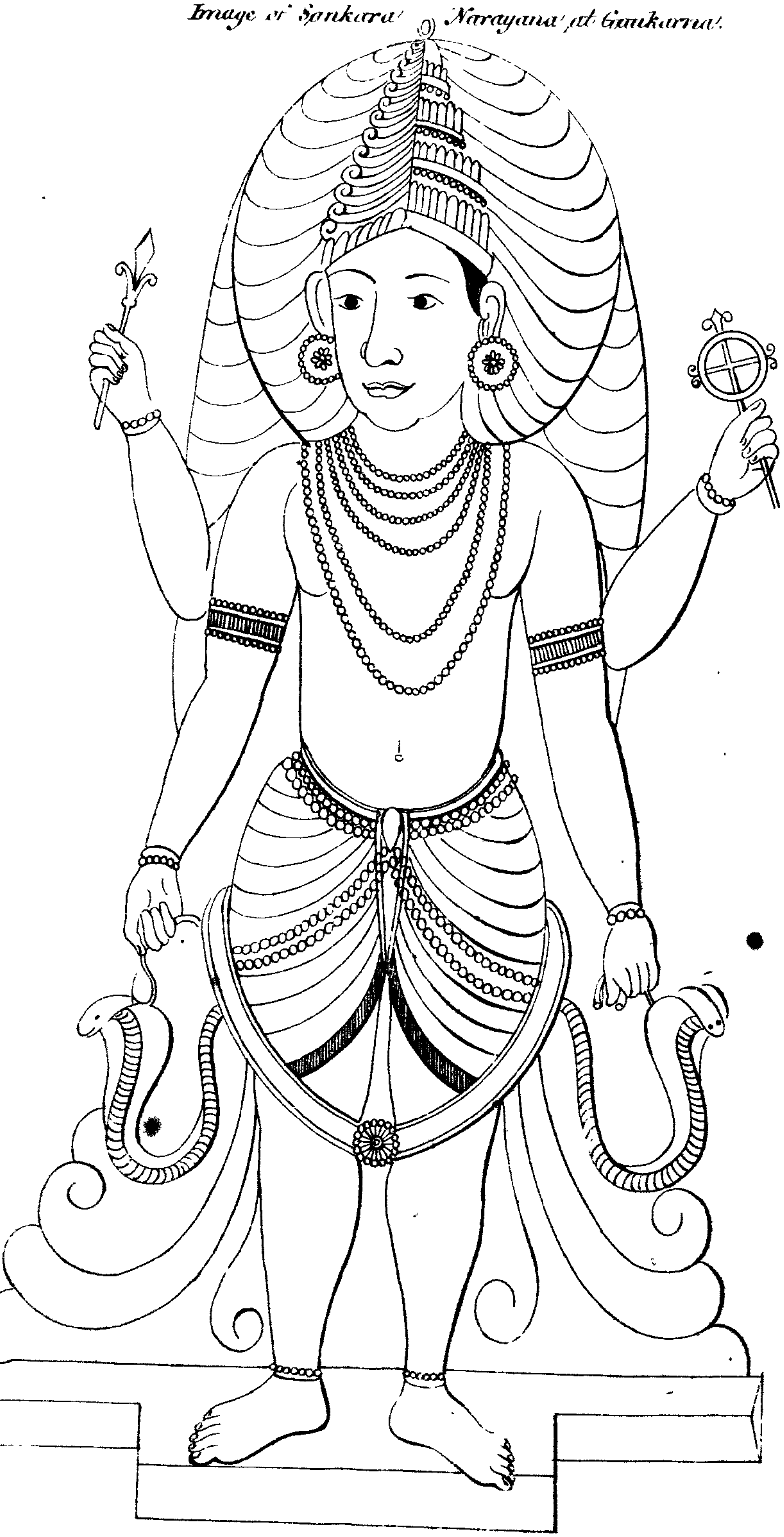
with the chronology of *Ramuppa.* Having been informed that there were here many inscriptions on stone, I went out in search of them.

The large tank is a very fine work, and the only structure in the place that is worth notice. Near this, in the yard of a small religious building called *Kameswara Matam,* I found the most ancient inscription. The stone on which this is cut is at the top adorned with emblems, which indicate that its erectors have been worshippers of *Siva.* Much of it is buried under ground; only thirteen lines are at all legible, and parts of these are decayed. First come the titles of the sovereign *Cadumba Chicraverti.* These are quite different from those assumed by the kings of *Vijaya-nagara,* which are known by almost every *Bráhman,* and facilitate greatly the reading of all the inscriptions that were made during their government. The titles given to *Cadumba Chicraverti* seem to be little understood. After the titles, and a defacement of half a line, mention is made of two sons, learned and heroic men, and *Rajas* by the favour of *Rajaya* (the goddess of the earth). Then follow some unintelligible words. Then the date of the *Kuli-yagam* 120, being *Vikrama,* 15th *Maga,* there being then an eclipse of the moon. These two sons gave *Dharma* (charity), by building *Kamesvara Matam,* on the west side of the temple of *Sankara Narayana,* in the name of *Sri Mahaboleswara*; and for the performance of *Bunaneia* (worship and charity) in this *Matam,* they granted certain grounds, then overset, without proprietors, and become *Haraweri* (reverted to the state), with the water-courses, house-steads, gardens, *Betta*-fields, *Chitta*-fields high and low, and the rank formerly thereunto appertaining. Here the writing is totally defaced. It probably contained the extent, name, and boundaries of the lands. From their disposing of lands belonging to the government, it is probable that the two sons, mentioned in the inscription, were sons of the king. The first cypher of the date is defaced; but from some fragments of it the *Brahmans* think that it must be either a 1 or a 3; and from their traditions they are inclined to think that it is the former. *Cadumba Chicraverti* is the ancestor of *Myuru Varma.* This date would make him to have reigned 534 years earlier than the time assigned for the commencement of his reign by *Ramuppa*; which, I have already said, is probably much more early than the reality. The 3120, supposing that to be the true reading, would make *Cadumba Chicraverti* to have been governing 149 years before the time in which (from an inscription that I afterwards procured) I found that his descendant *Trenetra Cadumba* actually reigned. I am persuaded, therefore, that this is the proper era of *Myuru Varma,* and the introduction of the *Bráhmans* from *Ahichaytra*; and that the *Banchica, Abhira,* and *Monayer* families of *Ramuppa,* are either names altogether fabricated, in order to increase the antiquity of *Myuru Varma*; or that, more probably, the order in the succession of the dynasties has been altered. This inscription, copied in imitation of the old character, has been delivered to the Bengal

Fig 67.

PLATE XXIV.

Image of Sankara Narayana at Gaukarna.



G. PA... ...

government. The image of *Sankara Narayana*, mentioned in this inscription, still remains in a small temple, on the east side of the *Matam*; and is a strong proof of the early prevalence of the doctrine which the *Smartal* now teach, namely, that *Siva* and *Vishnu* are different names for the same god, according to his different attributes, as destroyer and preserver of the world. A likeness of it is given in Plate XXIV.; from which it will appear, that, in order to show their identity, the same image has the emblems of both gods. The names do the same; for *Sankara* is one of the titles of *Siva*, and *Narayana* one of the names of *Vishnu*. 1801. Feb 25.

The next most ancient inscription that I found here was, like the others, in a private house, and exceedingly neglected. It is dated *Anunda* 1297, Friday 1st *Palguna*, in the reign of *Sri Vira Buca Raya*, by the favour of the feet of *Virupacsha Devaru* (the *Siva* at *Humpay* opposite to *Vijaya-nagara*) king of the east, west, and south seas. This must be *Buca Raya* the First, who would therefore appear to have reigned at least two years later than the time assigned for him by *Ramuppa*.

Another is dated in *Sal.* 1308, and contains a grant of revenue for supporting an inn, by the son of *Hàri-hara Raya*; but his name is effaced. A copy of this has been delivered to the Bengal government.

The last that I visited is dated *Suabanu Sal.* 1472, on the 23d of *Sravana*. In this, *Solva Krishna Devarasu Wodearu*, son of *Sedusiva Raya*, and king of *Nagara* (*Vijaya-nagara*), *Haiva, Tulava, Kankana*, &c., grants lands situated in the *Ashtá-grám* of *Sashisty* district (*Desa*) in *Govay Ràyada* (principality of *Goa*.) Hence it will be evident, that, while this powerful *Hindu* prince lived, the *Adil Shah Sultans* of *Vijaya-pura* were very much confined in their territories toward the south-west.

27th *February*.—It having been mentioned to me, that the books of the hereditary *Shanaboga* here contained much curious information, I determined to stay a day, and examine them. I found that he had a *Bahudunda* of two volumes. The first commenced with some verses on medicine. Then followed some rules for the performance of the ceremonies of religion. Then came an old list of the names of all the principal traders in *Mirzee*. They were 54 in number; but the ants had eaten up the date. This was followed by an old enumeration of the inhabitants of *Mirzee* district (*Taluc*), then divided into three divisions (*Maganas*) *Gaukarna, Nagara*, and *Seiganahully*. Then came an account, without date, of a contribution which a vagrant *Bráhman* had raised for the repairs of a temple. Then came the copy of a grant, originally engraven on stone, dated in 1442, the year of *Sal.* 1441 having past. By this, *Rutnuppa Wodearu* and his son *Vijayuppa Wodearu*, having been appointed *Rajas* of *Baracuru* by *Sri Vira Krishna Raya* on the throne of *Vijaya-nagara*, they granted to a certain *Bráhman* the *Shistu*, or land-tax, arising from certain grounds, and amounting to the annual

Feb. 27. Account of a *Bahudunda*, or register, kept by the hereditary accomptant.

1801. Feb. 25.

value of 25 *Pagodas*. This year, according to *Ramuppa*, was the first of the reign of *Krishna*. Next follows a paper respecting the relief granted to a village by a Mussulman governor, under the *Sultan* of *Vijaya-pura*. Then comes a memorandum, which states that *Mahaboleswara*, the great *Pagoda* here, possessed lands to the value of 12,000 *Pagodas* a year (4835*l*. 7*s*. 2½*d*.), from the time of *Madau Raya* (probably the great doctor of the *Brahmanical* laws) in the year of *Sal*. 138$\frac{8}{9}$, until the time of *Byra Devi*. The memorandum then details all the lands, and appropriates the manner in which the revenue is to be expended. No date accompanies this memorandum; but it is looked upon by the *Bráhmans* as affording the temple a sufficient right to the specified lands, and as a clear proof that the rules for expenditure were prescribed by *Madua Raya*. Next follows a grant of lands to the ancestors of the *Shanaboga*, from *Mahamundeleswara Krishna Devarasu Wodearu*, king of *Nagara*, *Haiva*, *Tulava*, *Kankana*, &c., in the year of *Sal*. 1452, which also is agreeable to *Ramuppa's* chronology. Then comes a copy of a *Shist*, or valuation, usually called that of *Krishna Rayaru*; but there is nothing in the writing that shows when or by whom it was framed. It extends to the three divisions (*Maganas*) of *Mirzee* already mentioned, and includes a fourth named *Hirtitty*. From this it would appear, that those people who cultivated *Cumri* land paid 2$\frac{5}{8}$ *Fanams* a head. At present they pay 2½ *Fanams*. Gardens then were also taxed, and the government took one half of their supposed produce. Thus 1000 coco-nuts paid 3 *Pagodas*. It would appear, that since that time the price of this article has not increased, 6 *Pagodas* being the present value of 1000 coco-nuts. This seems to me a clear proof of the flourishing state of the country when the valuation was formed; as there can be no doubt, that the value of gold has in general decreased greatly since the time of *Krishna*, owing to the great quantities procured from America. The difference, therefore, must be made up by the more flourishing state of the country, which introduced wealth, and enhanced the price of every thing valuable: the present decayed state of the country, notwithstanding the low value of money, keeps down the price. By this valuation the pulse sown as a second crop was taxed. It had been a custom for every proprietor of a garden, at a certain festival, to wait on the officers of government, and present them with 1½ *Pagoda*. The valuation directs, that they should be exempted from this trouble, and that the money should be paid at the same time with their land-tax. The rice-land paid 3 *Pagodas* for every *Cumbum* of produce. The *Cumbum* is two-thirds of a *Corge*, and at present is worth on an average about 12 *Pagodas*. Since that time an additional tax of 3¾ *Fanams* has been laid on each *Cumbum*. In this manner each estate having been valued, the land-tax was fixed on it *in cumulo*; and the same continues still to be taken, with the addition above mentioned on the rice-lands; but a great deduction is made on account of lands not occupied.

Valuation supposed to have been made by *Krishna Raya*.

When the valuation was formed, there was no tax on houses, but shops paid a duty to the *Suncha*, or custom-house. 1801. Feb. 27.

The second volume of the *Shanaboga's* register commences with a kind of chronicle. *Killidi Vencatuppa Náyaka* having destroyed *Byra Devi*, information of the event was sent to *Ibrahim Adil Shah Padishah*, by *Sherif ún Mulk*, the *Vazir* residing at *Ponday*, a place near *Goa*. This officer seems to have commanded in *Kankana*, after the Mussulmans had seized on it, during the decline of the *Hindus* of *Vijaya-nagara*. The *Padishah* then ordered all the *Havildars* (military officers) commanding *Kankana*, to join *Sherif ún Mulk*, and to fight with *Vencatuppa Náyaka*. On the 5th of *Margasirsha Sal.* 1529, being the year *Parabava*, they advanced as far as *Chindawera*, where they were entirely defeated. They retreated beyond the *Mirzee* river, and, having there built a strong fort, the river continued to be the boundary between the *Sivabhactars* and Mussulmans. Next year *Sherif ún Mulk* returned to *Ponday*, leaving an officer (*Havildar*) in command at *Mirzee* to collect the revenues, and remit them to *Ponday*. In the course of thirty-five years, there were twelve governors (*Havildars*). These were succeeded by officers called *Mahal Mocasi*, of whom there were ten at *Mirzee* in the course of thirty years. A *Tannadar* then governed it for eighteen months. After which *Mammud Khan* held the government for a year and a quarter. *Abdul Hassein Havildar* then governed twenty-one months, another *Havildar* nine months, and *Murtiza Khan* a similar length of time. He was displaced by two Mussulmans, who rose up, and put him in confinement. These possessed the country for eighteen months. After this *Mirzee* became subject to the *Sivabhactars*, and continued to be governed by *Karnataca Parputties* till the year *Durmutti*, fourteen years after *Hyder* had reduced *Bidderuru*, now called *Nagara*. Chronicle.

Next follows a valuation (*Shishtu*) which was made by the officers of *Adil Shah*, in the *Fusly* year, or year of the *Hejira* 1044, and includes the five districts, or *Mahals*, that were subject to *Vijayapura*, and were named *Mirzee*, *Ancola*, *Ponday*, *Cadawada* (*Carwar*), and *Siveswara*; and which were probably the part of the dominions of *Byru Devi*, that fell to the share of the Mussulmans. This is the valuation now in use. *Hyder* imposed no new taxes, but resumed one half of the charity lands (*Enams*); *Tippoo* seized upon the remainder. Valuation by *Adil Shah*.

I have detailed the contents of these volumes, that a judgment may be be formed, of what may be usually expected in such registers, which are very numerous throughout the Peninsula.

In my evening walk I examined an inscription on stone. It is dated *Sal.* 1311, 1st *Phálguna*, and in the reign of *Bucá Ráya Trilochia*, &c. son of *Hari-hará Ráya*, king of *Haiva*, *Tulava*, *Kankana*, &c. This must be *Buca Ráya* the First, and his reign must have continued much longer than is mentioned in the *Ráya Paditti*. He must also be the same prince mentioned in the inscription, page 319 (of this Volume), which shows that *Hari-hara* was not succeeded by Inscription.

1801. Feb. 27. his former companion *Buca,* but that he named his son and heir after that friend.

On my return, I met with an itinerant image of *Hanumanta.* He was in a palanquin, attended by a *Pujári,* and many *Vairâgis,* and had tents, flags, *Thibet-tails,* and all other insignia of honour. He was on an expedition to collect the money that individuals in distress had vowed to his master *Vencata Ramanya,* the idol at *Tripathi*; and from his style of travelling seemed to have been successful. Many such collectors are constantly travelling about the Peninsula. Out of the contributions the *Pujari* (priest) defrays all the expense of the party, and pays the balance into the treasury at *Tripathi,* which is one of the richest that the *Hindus* now possess.

Dancing women. At the temples here dancing girls are kept, which is not done any where on the coast toward the south; for in *Tulava* and *Malayala* many of the finest women are at all times devoted to the service of the *Bráhmáns.*

Feb. 28. *Gangawali* river. 28th *February.*—I went three cosses to *Ancola.* Midway is the *Gangawali,* an inlet of salt water that separates *Haiga,* or *Haiva,* from *Kankana.* Its mouth toward the sea is narrow; but inwards it forms a lake, which is from one mile to half that extent in width, except at the ferry, where it contracts to four or five hundred yards. Boats of a considerable size (*Patemars*) can come over the bar, and ascend the river for three cosses. Canoes can go three cosses farther, to the foot of the *Ghats.* The boats of *Haiga* are the rudest of any that I have ever seen, and no where worse than on this river, which possesses no trade; and the country on its banks, although very beautiful, seems rather barren.

Appearance of the country. Between *Gaukarna* and the river, the country consists of low hills, separated by rice grounds of very small extent. Where they are of any considerable size, the soil is very sandy. Soon after leaving the *Gangawali* I crossed a smaller salt water inlet, which by overflowing it at high water injures a good deal of land.

Salt. The salt made in this part of the country, where there are the same natural advantages as at *Goa,* is very bad, and scarcely saleable at any market; whereas at *Goa* vast quantities are made, and sent not only inland, but all over the coast. This seems to be an object that merits attention, so soon as the population shall have increased beyond what is adequate to cultivate the lands.

Appearance of *Kankana.* The part of *Kankana* through which I have passed resembles *Haiga.* The quantity of rice-land is pretty considerable. Most of it is what in *Malabar* would be called *Parum,* yet it produces annually a crop of rice, and much of it a second crop of pulse. Although this part of *Kankana,* which is subject to the British government, and forms the district (*Taluc*) of *Ancola,* is larger than either of the districts into which *Haiga* is divided, it produces only an annual revenue of 29,000 *Pagodas*; while *Honawera* produces 51,000, and *Kunda-pura* yields 50,000. This is not attended with any advantage to the inhabitants; for the houses of the proprietors

and cultivators are greatly inferior in appearance to those in *Haiga*, *Tulava*, and *Malayala*. The low revenue is not therefore owing to the people being less burthened, nor is it owing to an inferiority in natural riches, but to a long unsettled state, which has occasioned a wonderful devastation. The officers of revenue say, that one-third of even the good lands are now waste. This devastation has been owing to the constant depredations of *Marattah* chiefs, and robbers of two castes which are called *Comarapeca* and *Halepeca*. A *Comarapeca* chief, named *Ghida Ganoji*, or the short *Ganesa*, having continued in his usual practices after the conquest by the English, Major Monro sent a party of *Sepoys*, who shot him; ever since which the country has been quiet. 1801. Feb. 28.

Ancolá is a ruinous fort, with a small market (*Bazar*) near it. Robbers have frequently burned the market; but it is now recovering, and contains forty shops. It is not the custom here for the people to live in towns. A few shops are collected in one place; and all the other inhabitants of what is called a village are scattered upon their farms. Most of the people here are of *Karnata* extraction; and few of *Kankana* descent remain, except a particular kind of *Bráhmans*, who are all merchants, as those of *Haiga* are all cultivators. Being originally descended from *Pansh Gauda*, or *Bráhmans* of the north of *India*, those of *Kankána* are held in great contempt by the *Dravada Bráhmáns*, or division of the south; one of the strongest reasons assigned for which is, that they eat fish. *Ancola.*

1st *March*.—I went five cosses to *Chandya*. At two computed cosses from *Ancola*, I crossed a considerable salt-water inlet called *Belicary*. The country between is level, but very sandy, and little cultivated. The banks of the *Belicary* are well planted with coconut gardens; and being broken into many islands and points are very beautiful. At the mouth, although it admits boats of some size (*Patemars*), it is not above two hundred yards wide. Small boats can ascend two cosses, to where the inlet receives from the *Ghats* a stream of fresh water. A little north from its mouth is a high island, called by the natives *Sonaka Guda*, which with a high promontory, projecting far to the west, forms a large bay, in which at this season there is scarcely any surf. Here the road for some way leads along the beach. At the head of the bay there is a fine plain between the hills toward the *Ghats*, and those forming the promontory which projects into the sea. The soil of this plain is good, but in many places is spoiled by the irruption of salt water creeks. Money has this year been advanced to make a bank, which will be a great improvement. Toward the north the plain becomes narrower, and is overgrown with trees. Part of this has been formerly cultivated; and, if there were inhabitants, the whole might be rendered productive. Farther north the valley opens again into a fine plain, which faces the sea on the north side of the promontory. From the sea on the south of this to that on the north, is computed three cosses, or about ten miles. On our maps March 1.

1801. March 1. this part of the coast appears to be very ill laid down. *Chandya* is in the plain at some distance from the sea. At this place there is no market (*Bazar*), but there are many scattered houses sheltered by groves of coco-nut palms.

Catechu. In this part of *Kankana*, a little *Cut*, *Catechu*, or *Terra Japonica*, is made by some poor people, who gave me the following account of the process. The tree, or *Mimosa Catechu*, is called here *Keiri*, and grows spontaneously on all the hills of *Kankana*, but no where else in the peninsula that I observed. It is felled at any season; and, the white wood being removed, the heart is cut into small bits, and put, with one half the quantity of water by measure into a round-bellied earthen pot. It is then boiled for about three hours; and when the decoction has become ropy, it is decanted. The same quantity of water is gain added, and boiled, until it becomes ropy; when it is decanted, and a third water also is given. This extracts all the substance from the wood. The three decoctions are then mixed, and next morning boiled in small pots, until the extract becomes thick, like tar. It is afterwards allowed to remain in the pots for two days, and then has become so hard, that it will not run. Some husks of rice are then spread on the ground, and the inspissated juice is formed into balls, about the size of oranges, which are placed on the husks, or on leaves, and dried seven days in the sun. For two months afterwards they are spread out in the shade to dry, or in the rainy season for twice that length of time, and are then fit for sale. Merchants who live above the *Ghats* advance the whole price four months before the time of delivery, and give 2 *Rupees* for a *Maund* of 40 *Cutcha Seers* of 24 *Rupees* weight; that is, for a hundred-weight $9\frac{89}{100}$ *Rupees*, or nearly 1*l.* sterling. The merchants who purchase reside chiefly at *Darwará*, *Shanore*, and other parts in that neighbourhood, and are those who supply the greater part of the peninsula with this article, which among the natives is in universal use. Their greatest supply comes from that part of *Kankana* which is subject to the *Marattahs*. The encouragement of this manufacture in British *Kankana* seems to merit attention. The tree is exactly the same with what I found used for the like purpose in the dominions of *Ava*, and does not agree very well with the descriptions in the *Supplementum Plantarum* of the younger Linnæus, nor in Dr. Roxburgh's manuscripts.

March 2. Appearance of the country. 2d *March*.—I went three cosses to *Sedasiva-ghur*. The road passes over two steep ridges of hills, running out into two promontories, between which is a bay sheltered by the island of *Angediva*, belonging to, and inhabited by the Portuguese. South from the island are two small hummocks, and off the southern promontory are some high rocks. The appearance of the whole from land renders it probable, that shelter might be found here for ships, even during the south-west monsoon. In the plain round this bay the soil is tolerably good. On the plain north from the two ridges it is very sandy, and much spoiled by salt water, which soaks through any

such banks as can be formed of the loose materials that are procurable. The coco-nut is perhaps the production which would thrive best; but a great part of the plain is waste, and covered with bushes of the *Cussuvium* called *Govay* by the natives, from its having been introduced from America by the Portuguese of *Goa*. The river of *Sedasiva-ghur* is a very wide and deep inlet of the sea. The passage into it is intricate, but at the height of the tide contains 25 feet water. It is sheltered in a deep bay by three islands, one of which, called by the natives *Karmaguda*, is fortified. The entrance is commanded by the fort, which is situated on a lofty hill. Much land in this vicinity has fallen into the hands of government, and, owing to the depredations of the *Comarapeca* robbers, has become waste. One of their chiefs, named *Venja Nayaha*, was the terror of the whole country, and forced even *Bráhmáns* to adopt his caste. Two of his sons were hanged by *Tippoo*; but, until terrified by the firmness of Major Monro's government, he continued obstinate in his evil practices. Soon after that gentleman's arrival, he made his submission, and continues to behave like a good subject. I found him very ready to give me assistance in procuring supplies, and means to transport my baggage; and from the mildness of his manners, until informed by the officers of revenue, I had no idea of his disposition, which was barbarous in the extreme. **1801. March 2.**

3d *March*.—I remained at *Sedasiva-ghur* taking some account of the state of British *Kankana*, and making preparations for my journey up the *Ghats*. The *Petta*, or town, here contains about twenty very wretched shops: all the other inhabitants live scattered on their farms. *Cadawada*, or as we usually pronounce it *Carwar*, stood about three miles above *Sedasiva-ghur*, on the opposite bank of the river. It was formerly a noted seat of European commerce, but during the *Sultan's* reign has gone to total ruin. There are here at present some merchants from the *Mahratta* dominions above the *Ghats*, who say that they came chiefly with a view of purchasing salt. They also procure here a considerable quantity of *Cut*, none of which grows above the *Ghats*. They purchase it for ready money from the merchants of the country, who make the advances to the manufacturers. It is of a very good quality; and they cannot afford to give more than 10 *Sultany Pagodas* for the *Candacá*, or *Candy* of 40 *Maunds* of 48 *Seers* each; that is, 40 *Rupees* for the *Candy* of 582½ lb., or 15*s*. 5*d*. a hundred-weight. **March 3. Commerce.**

It would appear, that at one time all the lands of this district (*Taluc*) belonged to *Jain* landlords (*Mulagars*); but all these have either been killed, or so oppressed that they have disappeared. After their expulsion, part of the lands were annexed to the government, and part given to landlords (*Mulagars*) called *Hubbu Bráhmáns*. These are of the *Pansh Dravada* division; but are considered as having been degraded by *Sankara Acharya*, and are now reduced to a miserable state of ignorance. None of them here can give any account of the time when they came into the country, who brought **Tenures.**

1801. March 3. them, or whence they came. They are the common *Panchangas*, or almanac-keepers of the country, and in some temples are priests (*Pujaris*); but *Sujeswara*, the most celebrated temple in the country, and one of those built by *Ravana*, king of *Lanca*, is in possession of a colony of *Maratta Bráhmans*, who were introduced by *Mahomed Adil Shah* of *Vijaya-pura*. Of the history of the country these know nothing, except the legends concerning the foundation of their temple that are to be found in the eighteen *Puránas*. The lands formerly granted to the *Hubbu Bráhmans*, and which form by far the greater part of the country, are called *Mula* lands, and may be transferred by sale whenever the proprietor pleases. The *Hubbus* have indeed alienated a great part of it to *Marattahs*, *Kankana Bráhmáns*, and *Comarapeca*. It may be also transferred on mortgage, resumable at pleasure by paying the debt. This tenure is here called *Adava*. The *Shist*, or assessment, now in use, was made by *Sherif ún Mulk*, the *Vazir* of *Ponday* already mentioned; and was formed by laying so much on the land, according to its soil, and the quantity of rice seed that it was supposed capable of sowing. The proprietor may cultivate it with whatever he pleases, and may plant it with palms without any additional tax. Since the time of *Sherif un Mulk*, a small tax has been imposed on every coco-nut tree; and at different times, by imposing a per centage (*Pagadiputti*) on the amount of each person's land-tax, an increase of revenue has been made. Major Monro, according to the account of the revenue officers, considerably reduced the rate of the land-tax; but owing to his care, and strictness in the collections, the revenue which he raised was much greater than was ever before raised. the proprietors allege, that they paid more to him than they did to *Tippoo*. The two accounts are very reconcileable; as under the inspection of Mr. Monro there was little room for the corrupt practices which in the *Sultan's* government were very prevalent. Disputes about landed property are very common. An estate paying four *Pagodas* of revenue can be mortgaged for a hundred *Pagodas*, and the mortgagee pays the taxes. The same estate will sell for one hundred and fifty *Pagodas*. The government lands are let at rack rent, which is of course higher than the tax (*Shist*) paid by the proprietors (*Mulagars*). The tenants on these lands, or *Circar Cutties*, cannot be turned out of their farms so long as they pay the rent, the leases being in perpetuity. They can neither sell not mortgage their lease; but they may let it to an undertenant. By far the greater part of the cultivation is carried on by the proprietors (*Mulágars*) and tenants of the public (*Circar Cutties*), and very little by lease-holders. The sizes of the farms vary from one to five ploughs. Two oxen are required to each plough, which cultivates from five to seven *Candies* of land. In general, the family of the proprietor labours the farm, but a few rich men employ hired servants. There are here no slaves. Men servants get yearly from two to six *Pagodas*, or from 16*s.* 1½*d.* to 48*s.* 4½*d.*;

but those, who get only the first sum in money, have daily one meal of rice. 1801. March 3.

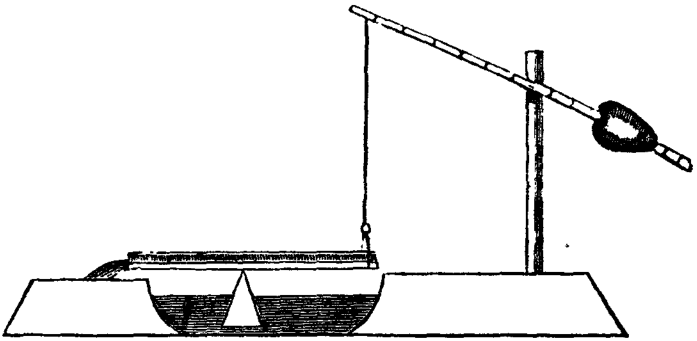
The cultivation of watered-fields, and of gardens, both on the same kind of land, is the only one known in British *Kankana*, except the *Cumri*, or *Cotu Cadu*, called here *Culumbi*. There is no ground from which two crops of rice in one year are taken; but, while most of the rice grows in the rainy season, some land called *Vaingunna* is so low, that in the rainy season it cannot be cultivated, and, after the water has evaporated, this yields a crop. All the other land is called *Surd*, and is mostly what in *Malábar* would be called *Majelu*, and what the people of *Tulava* would call *Betta*. In the accompanying Table may be seen several particulars relative to the cultivation of rice, which were taken from the accounts of the cultivators. I had no opportunity of ascertaining the quantity of land required to sow one *Candaca* of seed, nor, consequently, of judging how far the statement of the produce is credible. Rice.

Table explaining the cultivation of Rice in British *Kankana*.

Name.	Ground.	Produce of One *Candaca* Sown.			Time required to ripen.	Quality.
		Suca-dan.		Rice.		
		1st Soil.	2d Soil.			
		Candacas	*Candacas*	*Candacas*	Months.	
Asgha	*Surd*......	6	5	4	3½	Large.
Pandia.....	....	6	5	4	3½	Ditto.
Patni	....	6	5	4	3	Ditto.
Halga	....	none	......	4	3	Middle sized.
Sanmulghi.	....	6	5	4	4	Ditto.
Wala	....	8	6	5	4	Small.
Cago... ...	....	none	......	10	3½	Large and coarse.
Sorutta ...	*Vaingunna*	none	......	4	4	

The *Suca-dan* is, where the seed is sown broad-cast without preparation; and in this case one-fifth more seed is required for the same ground, than when, previous to its being sown, the seed is prepared, or made to sprout, which is here called *Rau*. The *Cago* in cultivated on the lands impregnated with salt by inundations, and is the only kind that will thrive in such places. The *Wala* requires a clayey soil, and its produce is great; but the quantity of this soil is very small. All the *Surd* land requires manure. The seed season for dry-seed is the month preceding midsummer; and that for sprouted-seed is the month following. In *Vaingunna*, or inundated land, according as the water evaporates, the seed season continues during the two months previous to and one month after the winter solstice. The fields are watered from small *Tanks*, which in such low situations

1801. March 3. do not suddenly dry up, and contain the water at from one to two feet below the surface. It is raised by means of a trough, which moves upon a pivot near the centre; so that one of its ends may be immersed into the water, while its lighter end hangs over the field.



To the heavy end is annexed a *Yatam* wrought by two men, who allow this extremity of the trough to sink into the water, and to be thus filled. They then raise it by the *Yatam*, and the water runs out upon the field by the light end. Two men with a basket and ropes would throw out four times as much water, but it would be hard work.

Pulse. Upon good *Surd* land may be procured a second crop of the following leguminous plants:

Udied, Phaseolus minimoo, Roxb. MSS.
Mung, Phaseolus mungo.
Cultie, Dolichos biflorus.

These are cultivated in the same manner as the pulses in *Haiga.*

Manure. In the rainy season the cattle are kept in the house, and, to increase the quantity of manure, are littered with fresh leaves. In the dry season they are shut up at night in pens, which are placed on the *Surd* lands, and are shifted once in four days. Every morning some dry soil is mixed with the foregoing night's dung, and the whole is made smooth, that the cattle may lie clean. The manure collected in the rainy season is given to the soil of the first and second quality, which are always sown with rice after the dry-seed cultivation. The ashes of the family are kept separate, but are used for same kind of land.

Cattle. The cattle here are of the same small kinds that are to be found on the coast to the southward. A great many of them are brought from above the *Ghats.* At this season they are in a most wretched condition, and are supported entirely on straw; for in *Kankana* no hay is made. In this part of the country few buffaloes are employed.

The *Comarapeca* are a tribe of *Kankana* descent, and seem to be the *Sudras* of pure birth, who properly belong to the country; in the same manner as the *Nairs* are the pure *Sudras* of *Malayala*. By birth they are all cultivators and soldiers; and, as usual with this class of men among the *Hindus*, are all strongly inclined to be robbers. From the anarchy which has long prevailed in this neighbourhood, they had acquired an extraordinary degree of cruelty, and had even compelled many *Bráhmans* to assume their customs, and adopt their caste. They have hereditary chiefs called *Nayakas*, who, as usual, with the assistance of a council, can expel from the caste, and settle disputes among their inferiors. A man's own children are his heirs. They can read poetical legends, and are permitted to eat meat and drink spirituous liquors. Their women are not marriageable after the age of puberty. Widows ought to burn themselves with the bodies of their husbands, but this barbarity is no longer in use. Widows, and women who have been divorced for adultery with a *Bráhman* or *Comarapeca*, may be taken into a kind of left-hand marriage; but their children are despised, and no person of pure descent will marry them. A woman cannot be divorced for any other cause than adultery; if the crime has been committed with any man but a *Bráhman* or *Comarapeca*, she loses caste. The men may take as many wives as they please. The *Sringagiri Swamalu* is their *Guru*. He receives their *Dharma*, and bestows on them *Upadesa*, holy-water, consecrated ashes, and the like. The *Panchanga*, or astrologer of the village, is their *Purohita*, and reads prayers (*Mantrams*) at marriages, *Namacurna* (the giving a child its name), *Tithi*, *Amavasya*, &c., &c. They worship the great gods, *Siva* and *Vishnu*, in temples where *Kankana Bráhmans* are *Pujaris*. They offer bloody sacrifices; and at the temples of the *Saktis*, or destructive spirits, such as *Davu Dévaru*, and *Marca Devi*, whose priests (*Pujaris*) are called *Gurus*, they swing suspended by iron hooks which are passed through the skin of their backs. The spirits of children, whose mothers die during pregnancy, are supposed to become *Butas*, or devils, and to occasion much trouble to those unfortunate persons into whom they enter. The sufferers attempt to be relieved of them by prayer and sacrifice, and some village people are imagined to be possessed of invocations (*Mantrams*) capable of expelling these evil spirits. The *Comarapecas* suppose that the spirits of good men go to *Moesha*, a pretence that is looked upon by the *Bráhmans* as very impudent; for they think that such a place is far beyond the reach of a *Sudra*. For the spirits of bad men the *Comarapeca* do not know any place of punishment, nor do they know what becomes of such after death.

1801. March 3. Customs of the Comarapeca.

The *Bráhmans* properly belonging to *Kankana*, and who allege that they are the descendants of the colony to whom the country was given by *Parasu Rama*, are of the *Pansh Gauda* division. *Goa*, called by them *Govay*, seems to have been their principal seat. After being expelled thence by the Portuguese, they dispersed, and

Bráhmans of Kankana.

180 · March 3. have now mostly become traders. A few are still priests (*Pujaris*), and a very small number call themselves *Vaidikas*. All those who are here are very ignorant, and do not pretend to say when the *Jain* and *Panch Dravada Bráhmans* came in upon them.

March 4. Appearance of the country. 4th *March*.—I went three cosses to *Gopi-chitty*. For the first part of the journey the road led through a level country, with a few small hills scattered at some distance, and a pretty good soil. It afterwards passed among low hills covered with wood. In many places here, the soil seems good, and the trees are tall; so that pepper might probably be cultivated to advantage. In many other places the hills are barren, producing nothing but bushes, or stunted trees: *Gopi-chitty.* among them I saw no *Teak*. *Gopi-chitty* is a village containing eight houses. Owing to the disturbed state of the country, it had for twenty years been entirely deserted; but the confidence of enjoying security under Major Monro's authority, has induced the present inhabitants to settle in the place, and they have already cleared a considerable extent of the rice ground, which constantly belongs entirely to the government. The lower part of the valley, toward the great river, has been destroyed by the breaking down of the dykes that kept out the tide. To repair these, would cost 25 *Pagodas*, which is more than the tenants can afford or choose to advance.

History of the part of *Kankana* subject to the British. This part of *Kankana*, on the fall of the *Sultans* of *Vijaya-pura*, became subject to the *Rájás* of *Sudha*, which we call *Soonda*. One of these, named *Sedasiva Row*, built the fort at the mouth of the river, and called it after his own name. The dialect of *Kankana* is used by the natives of this place in their own houses; but, from having been long subject to *Vijaya-pura*, almost all of them can speak the *Marattah* language, which has a very strong affinity with the *Hinduy* that is spoken on the banks of the *Ganges*.

March 5. Appearance of the country. 5th *March*.— I went four cosses to *Caderi*, and did not see a house the whole way; but the heads of some cultivated vallies approach near the road, and extend from thence toward the river. I passed through many places that formerly have been cultivated, but are now waste, and through some places where the soil seems fit for cultivation, but which probably have never been cleared. The trees in some places are of a good size, but none of them are very valuable. The people whom I took with me for the purpose gave me the following account of such as I observed by the way.

Forests. The most common is the prickly *Bamboo*, called *Colaki*.

Cussum, or the *Shaguda* of my MSS.

Is very hard, and strong, and is used for the cylinders of sugar-mills.

Rindela, *Chuncoa Hulica*, Buch. MSS.

Is used only for the beams of the houses of the natives.

Biba, *Holigarna*, Buch. MSS.

This is the varnish tree of *Chittigong*, and I suppose of *Ava*. The natives here are only acquainted with the caustic nature of its juice, and apply it to no use.

Cadumba, the *Nauclea purpurea*, Roxb. 1801. March 5.
A large tree used for planks.

Maratu, a *Chuncoa*, called by Dr. Roxburgh *Terminalia alata glabra*.
Grows to a very large size, and is used for building boats and canoes.

Beiládu, *Vitex foliis ternatis*,
Of hardly any use.

Cajeru, *Strychnos Nux vomica*.

Hedu, *Nauclea Daduga*, Roxb. MSS.
A large tree fit for planks.

Cumbia. The *Pelou* of the *Hort. Mal.*

Ticay, *Laurus Cassia*.
People from above the *Ghats* come to collect both the bark and the buds, which the natives call *Cabob-China*.

Paynra. *Gardenia uliginosa*, Willd.
Of no use.

Hodogus. *Arbor foliis subopposities, estipulaceis, ovalibus, integerrimis*.
The timber is said to be very strong and durable, and to resist the white ants, even when buried in the ground.

Sissa. *Pterocarpus Sisso*, Roxb. MSS.
Is found in great plenty near the river toward the *Ghats*.

Dillenia pentagyna, Roxb.
The natives have no name for it.

Jambay. *Mimosa xylobarpon*. Roxb.
It grows to an immense size.

Bassia longifolia.

Robinia mitis.

Myrtus cumini.

The forests are the property of the gods of the villages in which they are situated, and the trees ought not to be cut without having obtained leave from the *Gauda*, or head man of the village, whose office is hereditary, and who here also is priest (*Pujari*) to the temple of the village god. The idol receives nothing for granting this permission; but the neglect of the ceremony of asking his leave brings his vengeance on the guilty person. This seems, therefore, merely a contrivance to prevent the government from claiming the property. Each village has a different god, some male, some female, but by the *Bráhmans* they are all called *Saktis* (powers), as requiring bloody sacrifices to appease their wrath.

No persons here collect honey or wax.

Caderi at present contains only two houses, with one man and a lad, besides women. It was formerly a place of note; but for several years a great sickness has prevailed, and has swept off nearly all the inhabitants. This is attributed to the vengeance of some enraged *Buta*, or devil; but may be accounted for from the neighbouring country having been laid waste, and being over-run with forests. On the banks of the river at *Caderi* there was a fort, which *Caderi.* Unhealthy nature of the country.

1801. March 5. was destroyed by *Hyder*, and the garrison sent to occupy the fortified island at the mouth of the river. General Mathews, the natives say, took possession of the ruins, erected some works, and left a garrison, which held out until the peace of *Mangalore*. Most of the cultivators lived on the opposite side of the river. Those who resided near the fort were chiefly traders; and there is still a weekly fair at the place, to which many people resort. This seems to be the reason why the few remaining inhabitants continue in such a situation. They are *Bráhmans*; and from those who frequent the fair they receive considerable contributions. *Patemars*, or large craft, can ascend almost to the fort, and canoes can go two miles above it. The water is quite fresh. The encouraging of a market (*Bazar*) here seems to be an object of importance, and a mean likely to bring back a great trade to this river, which by nature has many advantages.

River of *Sedasiva-ghur*.

March 6. Robbers suppressed.

6th *March*.—I went four cosses to *Avila-gotna*, without having seen the smallest trace of cultivation, or of inhabitants. The country is not, however, entirely a desert. Small villages are scattered through the forests, and hidden in its recesses. Formerly the inhabitants of these lived in a constant defiance of the rest of mankind, robbing whoever unfortunately came within their power, and continually on the alarm to defend themselves from their neighbours. This manner of living has however been entirely stopped. Major Monro, by taking advantage of the terror inspired by the fall of *Seringapatam*, and by an instant punishment of the first transgressor, has made every thing quiet; and there is reason to think that a defenceless man may now traverse these forests without danger from his fellow creature. Tigers are said to be very numerous; and to lessen the danger to be apprehended from them, the traders who frequent the road have cleared many places where they may encamp, and these are prevented from being overgrown by annually burning the long grass. On one of these clear places I halted, having at no great distance a village of thieves.

The country through which I passed to-day was in general level with hills near the road toward the left, and a ridge to the right at about four or five miles distant. This ridge is that which runs out into the sea to form the southern boundary of the bay of *Sedasiva-ghur*. The trees are in general high, with many *Bamboos* intermixed. The soil is apparently good, and a large proportion of it is sufficiently level for the plough. Near *Avila-gotna* I crossed the river, which here assumes a very singular appearance. Its channel is about half a mile wide, and consists of a confused mass of rocks, gravel, and sand, intersected by small limpid streams, and overgrown with various trees and shrubs which delight in such situations. In the rainy season, it swells into tremendous torrents, but never fills the channel from bank to bank. It is then, however, quite impassable. At present its clear streams, with the fresh verdure of the plants growing near them, are very pleasant, after having come through the forest, whose leaves at this season drop; for all the

juices of the trees are dried up by the arid heat of this climate, in the same manner as they are by the cold of an European winter. The nights, however, are at present cool, but the days are burning hot. Near the sea a more equable temperature prevails. 1801. March 6.

7th *March*.—Although before leaving *Sedasiva-ghur*, I had collected the persons who were said to be best informed concerning the road, and had procured from them a list of stages said to be distant from each other three or four cosses, that is, about ten or thirteen miles; yet to-day, I came to my stage at *Deva-kara*, after less than an hour's journey. March 7.

The road passes along the south side of the river; and toward the east the valley becomes narrower, and more uneven; but still much of it is fit for the plough. From the stunted appearance of the trees I conclude that the soil is worse than that on yesterday's route. At *Deva-kara* there is a good deal of ground cleared, and formed into rice fields; but the people of eight houses, which form the village, are not able to cultivate the whole. The ground that is cleared is by no means equal either in soil or levelness, to much of what I saw waste on the two last days' journey; but it is finely watered by a stream that even now affords a great supply. The river at *Deva-kara* is a rapid stream full of small islands; but not so much broken as at *Avila-gotna*, and of course narrower. In the rainy season it is quite impassable; and then, although very rapid, swells at least ten feet above its present level. Face of the country.

At the commencement of the last rainy season, this village contained twelve houses; but, twenty persons having died, four of the houses are now deserted. It is looked upon as certain death, for any stranger to attempt to settle in this place. Unhealthy nature of the country.

Here was the residence of a very notorious robber, who died in consequence of the wounds that he received from the party which Major Monro sent to apprehend him. His family are now quiet cultivators, and ever since his death safety and tranquillity have been established in the country. Robbers.

The people here say, that their *Surd* lands produce from 12 to 20 seeds, which is a more probable account than that given at *Sedasiva-ghur*, unless the seed there be sown as thick as in *Malabar*. Produce of rice-ground.

As I am now about to enter *Karnata Desam*, where a new face of things will present itself, I shall here conclude the chapter, by extracting from Mr. Read's answers to my queries such as relate to that part of his district which is situated below the *Ghats*, and which comprehends the districts (*Talucs*) of *Kunda-pura* and *Honawera* in *Haiga*, and that of *Ancola* in *Kankana*. Mr. Read's account of the districts below the *Ghats*.

In these districts the proportion of land capable of being cultivated with the plough, or of being converted into gardens, Mr. Read estimates as follows; Soil.

1801. March 7.

	Now cultivated.	Capable of being so.	Sterile.
Kunda-pur	0·32	0·08	0·60
Honawera...	0·26	0·12	0·62
Ankola ...	0·21	0·20	0·59

Revenue.

The revenue, notwithstanding so much waste land, is said to have been greater during the first year of Major Monro's management, than it was ever before known to have been. Mr. Read attributes this to an increase of rent on the lands actually in cultivation; but of this I have much doubt. In general, the natives acknowledged a remission, which naturally they would not have done had their taxes been increased; and it must be remembered, that *Tippoo* had resumed all the charity lands (*Enams*,) which during the former governments probably amounted to more than what is now waste, while the collections remitted to the treasury, and consequently brought to accompt, during the *Sultan's* government, are no rule by which an estimate can be formed of the taxes; the whole revenue department under him having been subject to the most gross peculation.

The produce of the waste lands brought to market, Mr. Read states as follows:

Produce of waste-land.

The *Maund* weighs $24\frac{84}{100}$ lb. and is divided into 40 *Seers*.

	Sandal wood trees. Total.	*Teak* trees cut annually.	*Sissa* trees cut annually.	Annual produce of honey.	Annual produce of bees wax.	Annual produce wild cinnamon.	Annual produce of *Cabob China*.	Annual produce nutmegs	Annual produce of wild [illegible]per.
				Maunds	*Maunds*	*Maunds*	*Maunds*	*Maunds*	*Maunds.*
Kunda-pura.	8758	..	1582	..	..	8 30	25 30	..	51 0
Honawera ..	1017	2059	344	..	..	99 35	42 32½	12 5	533 0
Ancola	315	1124	572	8 0	2 7½	15 10	50 14	28 17½	474 38¾
Total..	10143	3183	2498	8 0	2 7½	123 35	118 36½	40 22½	1058 38¾

The *Cut*, and perhaps some other articles of less importance, have eluded Mr. Read's inquiries, probably from their never having been objects of revenue.

Sandal-wood.

"All sandal trees," says Mr. Read, "growing upon private lands are considered as the property of the government; but it would be ridiculous to suppose, that they will always be considered as such by the occupiers of estates, who undoubtedly commit frequent depredations upon them. It would therefore be for the benefit of the Company to have the whole cut down immediately that are of a fit age, which I am told is not till they are 30 years old. The whole might be easily collected at *Onore* (*Honawera*), and taken up by one of the Indiamen passing from *Bombay* to *China*." Mr. Read was probably not aware, that last year all the ripe sandal in *Mysore* had been cut, and a great danger has consequently been incurred of glutting the market; while some years hence it will probably be greatly enhanced in value. I have already mentioned

that some measure should be adopted for regulating the cutting of the sandal wood; so that a certain supply should annually be brought to market, and no more permitted to grow than can be disposed of to advantage; for it must be considered as a mere superfluous luxury, the only proper use of which is to become a source of as much revenue as possible. As the Company and the *Mysore Rájá* are in the sole possession of the countries which produce it, the arrangement might be readily made on somewhat like the following plan. An estimate of the quantity annually saleable, and of the whole produce that grows in both territories, having been formed, an agreement might be made, that each party should furnish the annual supply for a number of years, in proportion to the whole quantity that grows in his country. For instance, the *Mysore Rájá* might furnish the supply for nineteen years, and the Company for one, which I imagine is somewhat about the relative proportion of what the two territories produce. The parties, of course, would be tied down to sell no more than a certain weight each year. They might improve its quality, as much as they could; and public sales, such as the Company use in *Bengal* for opium and salt, I am persuaded, would be found by far the most advantageous manner of disposing of this article. Mr. Read mentions no difference in the quality of the sandal which grows below the *Ghats*, from that which grows in *Karnata*; but the natives that I have ever spoken with on the subject, from *Pali-ghat* to this place, look upon the produce of the low country as of little or no value, as having no smell.

1801. March 7.

The wild cinnamon and *Cabob China* are rented together for about 22 *Rupees* a year. The former sells in the market (*Bazar*) at 28 *Rupees* a *Candy*, and the latter at 32 *Rupees*. The *Candy* is equal to 20 *Maunds*.

Laurus cassia.

Mr. Read values the wild pepper at one *Pagoda* a *Maund*; and says, that it is of a quality very inferior to that raised in gardens, which sells for about 1½ *Pagoda*. All the natives with whom I conversed looked upon them as of equal value.

Wild pepper.

The number of people at present employed in the *Cumri*, or *Coticadu* cultivation, amounts to 2418, who pay yearly 954½ *Pagodas*, or 3*s*. 2¼*d*. a head. It is supposed by the revenue officers, that in this manner 1900 more people might find employment.

Cumri cultivation.

I have already mentioned Mr. Read's opinion concerning the quantity of land in his districts below the *Ghats* that is fit for the cultivation of rice or gardens. The quantity of sugar-cane annually raised is estimated at 98,19,250 canes, and Mr. Read does not think that this cultivation ought to be farther encouraged, as it would interfere with that of rice, which is more valuable.

Sugar-cane.

1801. March 7. Stock.

The stock required for the arable lands, according to Mr. Read, is as follows:

	Ploughs belonging to			Cattle.	
	Landlords.	Tenants.	Total.	Buffaloes old and young.	Cow kind old and young.
Kundap ura ...	3180	4843	7523	5894	23462
Honawera ...	4883	1221	6104	8472	22148
Ancola ...	2331	673	3004	2858	11055
Total...	10396	6237	16633	17224	55665

Plantations.

Mr. Read states it is Major Monro's opinion, that, had the land-tax on coco-nut plantations been more moderate, double the present quantity would have been raised. No means at present exist to ascertain the number, either actually growing, or that of plantations which have gone to decay.

Mr. Read gives the following account of the population of these districts.

	Houses, of which the following are occupied by						Persons of the following conditions		
	Total numbers.	Christians.	Mussulmans.	*Brahmans.*	*Sivabhactars.*	*Jain.*	Salt-makers.	Fishermen.	Slaves of both sexes.
Kunda-pura... ...	9049	36	485	1799	115	46	...	2628	410
Honawera...	10554	256	704	2231	21	39	180	4842	470
Ancola...	6130	93	311	804	11	1	...	1832	270
Total...	25733	385	1500	4834	147	87	180	9302	1099

In the annexed Statement will be seen the exports and imports, by sea, from these districts: the first amounting to 331,532 *Rupees*, and the latter to 44,585 *Rupees*.

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STATEMENT shewing the Average Annual Quantity of Goods imported and exported by Sea in the Northern Division of Canara, 1800-1.

No.	Names of the Articles.	Average annual Quantity Imported.								Total value in *Rupees.*	Average annual Quantity Exported.								Total value in *Rupees.*
		Corges of 1470 *Pucka Seers.*	*Morays* of 51¼ *Pucka Seers.*	*Candies* of 20 *Maunds.*	*Maunds* of 44 *Seers Cutcha.*	*Seers Cutcha* of 24 *Rupees.*	*Kodie*, or Scores.	*Tak* 40 Cubits.	*Adud*, or Pieces.		*Corges* of 1470 *Pucka Seers.*	*Morays* of 51¼ *Pucka Seers.*	*Candies* of 20 *Maunds.*	*Maunds* of 44 *Seers Cutcha.*	*Seers Cutcha* of 24 *Rupees.*	*Kodie*, or Scores.	*Tak* 40 Cubits.	*Adud*, or Pieces.	
1	Rice, cleaned	2	3¼	...	...	...	...	...	...	118	2363¾	5¾	...	...	...	...	...	...	141837
2	*Paddy*, or rough rice	64¾	5	...	...	...	...	...	...	1687	650¾	½	...	...	...	...	...	...	19523
3	*Ragy* (*Cynosurus*)	...	...	...	...	...	...	...	...	...	23¼	1	...	...	...	...	...	...	716
4	*Toor Dhall* (a pulse)	...	9	...	...	...	...	...	...	27	6¼	¾	...	...	...	...	...	...	628
5	Green *Cuddalay* (ditto)	1½	1¼	...	...	...	...	...	...	218	1	...	...	...	...	...	...	...	130
6	Wheat	1½	8½	...	...	...	...	...	...	244	...	3¼	...	...	...	...	...	...	14
7	*Shamay* (millet)	...	½	...	...	...	...	...	...	2	...	1	...	...	...	...	...	...	4
8	Mustard	...	¼	½	4	...	...	...	...	18	½	...	¼	1½	...	...	...	...	59
9	*Wooduth* (a pulse)	...	...	...	...	...	...	...	...	...	14¼	...	...	...	...	...	...	...	862
10	Green *Gram* (ditto)	...	...	...	...	...	...	...	...	...	4½	½	...	...	...	...	...	...	281
11	*Huvvaday*, or *Allahsundy* (ditto)	...	...	...	...	...	...	...	...	...	6¾	2¼	...	...	...	...	...	...	364
12	*Gram* for horses (ditto)	...	...	...	...	...	...	...	...	...	14¾	...	...	...	...	...	...	...	740
13	Lamp-oil seeds (*Ricinus*)	...	2	...	...	...	...	...	...	5	...	...	...	...	...	...	...	...	...
14	*Chunam* (lime)	...	25¾	...	...	...	...	...	...	13	...	...	...	...	...	...	...	...	...
15	Salt	...	7643¼	...	...	...	...	...	...	2419	...	3105	...	...	...	...	...	...	621
16	Sweet-oil seeds (*Sesamum*)	...	6	...	...	...	...	...	...	15	...	10	...	...	...	...	...	...	25
17	*Toor* (a pulse)	...	7½	...	...	...	...	...	...	15	¼	...	...	...	...	...	...	...	19
18	*Lobay*, or white *Gram* (ditto)	...	...	...	...	...	...	...	...	...	...	¾	...	...	...	...	...	...	1
19	Oil	...	...	3	1	10	...	...	...	165	...	...	12¼	3	6½	...	...	...	731
20	*Ghee* (boiled butter)	...	...	1	8	9	...	...	...	149	...	...	...	3¾	¼	...	...	...	24
21	*Betel-nut* 1st sort	...	...	1½	¾	...	...	...	...	72	...	...	195¼	¼	10¾	...	...	...	11740
22	Ditto 2nd ditto	...	...	...	...	...	...	...	...	...	...	...	896	2½	6	...	...	...	36577
23	Ditto 3d ditto	...	...	...	...	...	...	...	...	...	...	...	128¼	3¼	8¼	...	...	...	4688
24	Ditto 4th ditto	...	...	...	...	...	...	...	98500	78	...	...	...	...	...	...	...	1538605	620
25	Pepper	...	...	¼	4	...	...	...	...	50	...	...	278¼	3¼	9	...	...	...	28030
26	Cardamoms	...	...	...	4½	5	...	...	...	138	...	...	...	...	...	...	...	...	...

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STATEMENT shewing the Average Annual Quantity of Goods imported, &c.—*continued.*

No.	Names of the Articles.	Average annual* Quantity Imported.								Total value in Rupees.	Average annual Quantity Exported.								Total value in Rupees.
		Corges of 1470 *Pucka Seers.*	*Morays* of 51½ *Pucka Seers.*	*Candies* of 20 *Maunds.*	*Maunds* of 44 *Seers Cutcha.*	*Seers Cutcha* of 24 *Rupees.*	*Kodie*, or Scores.	*Tak* 40 Cubits.	*Adud*, or Pieces.		*Corges* of 1470 *Pucka Seers.*	*Morays* of 51½ *Pucka Seers.*	*Candies* of 20 *Maunds.*	*Maunds* of 44 *Seers Cutcha.*	*Seers Cutcha* of 24 *Rupees*	*Kodie*, or * Scores.	*Tak* 40 Cubits.	*Adud*, or Pieces.	
27	*Jagory* of sugar-cane.	...	...	12	3¾	...	...	...	...	366	...	...	54	1	...	...	...	...	1100
28	*Palmira Jagory* (bundles).	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	537	136
29	Turmeric	...	...	...	4½	...	...	...	...	5	...	...	17½	4¼	...	...	...	...	476
30	*Jeeryah* (a pulse)	...	...	¼	3	...	...	...	...	34	...	...	..	4	5	...	...	...	20
31	*Mathee* (ditto).	...	...	¼	2¼	...	...	...	...	8	...	...	½	...	...	...	...	...	12
32	Coriander seed	...	16¾	3¾	½	...	...	...	...	108	...	...	6¼	4¾	...	...	...	...	204
33	*Woomum*, or *Ajewan* (a kind of anise)	...	...	¼	...	...	...	...	...*	6	...	...	¼	2	...	...	...	...	4
34	Onions	...	...	10⅓	3	..	...	...	...	102	...	...	8½	1⅓	...	...	...	...	103
35	Garlic	..	...	2¼	¾	...	...	...	...	45	...	...	1¾	2¾	...	...	...	...	50
36	*Chillies*, or *Capsicum*	..	...	5½	3¼	...	...	...	...	162	...	...	66¾	1	8	...	...	...	2184
37	Cinnamon (*Cassia*)	..	...	...	...	...	...	...	...	...	...	...	4	4	...	...	...	...	81
38	Ditto flower	...	...	...	...	...	...	...	...	...	...	...	10¼	4	...	...	...	...	252
39	Dry coco-nuts.	...	...	42¼	2½	...	...	...	...	1349	...	...	2½	2⅓	...	...	...	..	95
40	Tamarind.	...	...	3¾	1⅓	...	..	...	...	44	...	...	11¼	2¼	...	...	...	...	114
41	*Hamsool* ditto	...	5	..	..	...	...	...	...	7	...	21¼	...	...	...	...	...	...	38
42	Ginger	...	...	1½	1⅓	...	...	...	...	94	...	...	...	...	...	...	...	...	..
43	Green ginger	...	...	¼	...	...	...	...	...	4	...	...	...	...	...	...	...	...	...
44	*Cut*, or *Terra Japonica*	...	...	...	...	...	...	...	...	...	...	...	¼	...	...	...	...	...	10
45	*Coir* (coco-nut rope)	...	...	...	...	...	...	...	...	...	...	...	214¾	2	5	...	...	...	4170
46	*China* sugar	...	...	11¾	2¼	...	...	...	..	960	...	...	2⅓	2	...	...	...	...	235
47	Sugar candy	...	...	1⅓	3¾	5	...	...	...	270	...	...	...	...	...	..	...	...	...
48	Dry dates	...	...	61⅓	5	...	...	...	...	1364	...	...	...	...	...	...	..	...	...
49	Dates	...	...	312½	4⅓	...	...	...	...	4522	...	...	...	..	...	..	...	...	...
50	Plumbs (raisins)	...	...	¾	2¾	5	..	..	...	72	...	...	...	...	...	..	...	...	...
51	Mace	...	...	...	¼	...	...	...	...	50	...	...	...	...	...	...	...	...	...
52	Almonds	...	...	...	2¾	...	...	...	...	6	...	...	...	...	...	...	...	...	...
53	Camphire	...	...	..	4¼	...	...	...	...	176	...	...	...	...	...	...	...	...	...
54	Benjamin	...	...	¼	3	...	...	...	...	80	...	...	...	...	...	...	..	...	...

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55 *Googool Dammer* (Rosin)	...	...	1	...	...	...	...	...	21	...	...	4½	...	...	...	...	...	90
56 *Malacca* (ditto)	...	...	...	½	...	...	...	...		...	...	...	...	...	...	...	...	...
57 Brimstone	...	...	...	1½	...	...	...	...	4	...	...	¼	¾	5	...	...	...	18
58 Saltpetre	...	...	...	2	...	...	...	...	8	...	...	¼	...	...	...	...	...	25
59 *Kankana kar*	...	...	...	3¾	...	...	...	...	35	...	...	...	1	...	...	...	...	10
60 Tin	...	...	6¼	1¼	...	...	...	...	1290	...	...	...	...	...	...	...	...	...
61 Soap	...	...	2	½	...	...	...	...	162	...	...	...	...	...	...	...	...	...
62 *Chendoorum*	...	...	...	3½	...	...	...	...	21	...	...	...	...	...	...	...	...	...
63 *Puppada kar*	...	...	3	2	...	...	...	...	50	...	...	...	...	...	...	...	...	...
64 *Cupper Sooth*	...	...	...	2½	...	...	...	...	10	...	...	...	...	...	...	...	...	...
65 Wax	...	...	¼	¼	3	...	...	...	43	...	...	1	2½	1	...	...	...	180
66 *Moy Pull*, or *Coy*	...	...	...	4½	...	...	...	...	40	...	...	...	...	...	...	...	...	...
67 *Hing*, or *Assafœtida*	...	...	...	3	1½	...	...	...	90	...	...	...	...	...	...	...	...	...
68 *Tippeelee Moolum*	...	...	...	2½	...	...	...	...	20	...	...	...	...	...	...	...	...	...
69 Red paint	...	...	...	...	5	...	...	...	10	...	...	...	...	...	...	...	...	...
70 Green ditto	...	...	...	...	1½	...	...	...	3	...	...	...	...	...	...	...	...	...
71 Spanish root	...	...	¼	2	...	...	...	...	56	...	...	...	...	...	...	...	...	...
72 *Issup Koole*	...	...	...	2	...	...	...	...	20	...	...	...	...	...	...	...	...	...
73 *Goornahputhy*	...	...	...	...	5	...	...	...	10	...	...	...	...	...	...	...	...	...
74 *Subjah*	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...
75 Gum	...	...	...	3	...	...	...	...	10	...	...	...	...	...	...	...	...	...
76 *Jahpull Beez* (nutmegs)	...	...	...	3	...	...	...	...	15	...	...	...	...	...	...	...	...	...
77 *Gurd pull*	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	8
78 *Coochalay Beez*	...	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	4
79 *Muckah*	...	...	...	...	1	...	...	...	2	...	...	...	...	...	...	...	...	...
80 *Rogun*	...	...	...	...	1	...	...	...	4	...	...	...	...	...	...	...	...	...
81 *Cauree*, or paint (Reddle)	...	...	5¼	2½	...	...	...	...	120	...	...	...	...	...	...	...	...	...
82 *Paring Chucka*	...	...	2	...	...	...	...	...	80	...	...	...	...	...	...	...	...	...
83 Fish *geeree*	...	...	...	...	...	...	...	...	...	...	...	1	4¾	...	...	...	...	288
84 *Cutecoorogoony*	...	...	...	½	...	...	...	...	20	...	...	...	...	...	...	...	...	...
85 Iron	...	...	...	...	...	...	...	400	80	...	...	...	...	...	...	...	140	28
86 *Gopee Chundenum*	...	...	10	3½	...	...	...	...	129	...	...	...	3	...	...	...	...	3
87 Copper	...	...	¾	4½	4½	...	...	...	300	...	...	...	...	...	...	...	...	...
88 Brass	...	...	½	4½	...	...	...	...	145	...	...	...	...	...	...	...	...	...
89 Cotton	...	...	1	2	...	...	...	...	88	...	...	...	...	...	...	...	...	...
90 White thread	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	180
91 Twine	...	...	6¼	2½	...	...	...	...	133	...	...	...	...	...	...	...	...	...
92 *Cossumba* flower (*Carthamus*)	...	...	...	4¾	...	...	...	...	15	...	...	...	...	...	...	...	...	...
93 Silk thread	...	...	...	1¼	...	...	...	...	30	...	...	...	...	...	...	...	...	...

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STATEMENT shewing Average Annual Quantity of Goods imported, &c.—*continued.*

No.	Names of the Articles.	Average annual Quantity Imported.								Total value in *Rupees.*	Average annual Quantity Exported.								Total value in *Rupees.*
		Corges of 1470 *Pucka Seers.*	*Morays* of $51\frac{1}{4}$ *Pucka Seers.*	*Candies* of 20 *Maunds.*	*Maunds* of 44 *Seers Cutcha.*	*Seers Cutcha* of 24 *Rupees.*	*Kodie*, or Scores.	*Tak* 40 Cubits.	*Adud*, or Pieces.		*Corges* of 1470 *Pucka Seers.*	*Morays* of $51\frac{1}{4}$ *Pucka Seers.*	*Candies* of 20 *Maunds.*	*Maunds* of 44 *Seers Cutcha.*	*Seers Cutcha* of 24 *Rupees.*	*Kodie*, or Scores.	*Tak* 40 Cubits.	*Adud*, or Pieces.	
94	Tobacco *Malabar*	...	...	$105\frac{1}{2}$	$\frac{1}{4}$	$3\frac{1}{4}$	...	...	...	8508	...	...	6	$4\frac{1}{4}$	...	...	...	...	745
95	Stell	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	16	2
96	Sealing-wax	...	...	$\frac{1}{2}$	$\frac{1}{4}$	3	...	...	...	103	...	...	...	...	...	...	...	...	...
97	*Soonda* salt	...	...	...	$1\frac{1}{8}$	...	...	...	...	1	...	...	...	...	...	...	...	...	...
98	*Hingdah*	...	...	...	3	...	...	...	...	30	...	...	...	...	...	...	...	...	...
99	*Budda Soop*	...	...	...	$4\frac{3}{4}$	...	...	...	...	20	...	...	...	...	...	...	...	...	...
100	Sundry cloths	...	...	...	...	...	126	$196\frac{1}{2}$	140	...	...	...	...	...	...	$33\frac{1}{4}$	$49\frac{1}{2}$	...	...
101	Blue cloths	...	...	...	...	...	$55\frac{3}{4}$	5	...	3720	...	...	...	...	...	...	...	...	...
102	Silk cloths	...	...	...	...	...	$1\frac{1}{2}$	45	...	680	...	...	...	...	...	...	...	...	...
103	*Case* shawls (*Benares*)	...	...	...	...	...	...	40	...	560	...	...	...	...	...	...	...	...	...
104	Silk upper cloths	...	...	...	...	...	...	2	...	60	...	...	...	...	...	...	...	...	...
105	*Cutkah Tharree* cloths	...	...	...	...	...	$1\frac{1}{4}$	...	...	65	...	...	...	...	...	...	...	...	...
106	*Nankeen*	...	...	...	...	...	$6\frac{1}{8}$	$4\frac{1}{2}$	...	400	...	...	...	...	...	...	...	...	...
107	*Nar Muddee*	...	...	...	...	...	$8\frac{1}{4}$	37	...	202	...	...	...	...	...	...	...	...	...
108	Chints	...	...	...	...	...	3	$5\frac{1}{4}$	...	130	...	...	...	...	...	...	...	...	...
109	White *Comblie* (blankets)	...	...	...	...	...	$12\frac{3}{4}$	1	1	257	...	...	...	...	...	...	...	...	...
110	Black *Comblie* (ditto)	...	...	...	...	...	$6\frac{1}{2}$	...	5	80	...	...	...	...	...	...	...	1	2
111	*Mushrooms*	...	...	...	...	...	$1\frac{3}{4}$	57	...	698	...	...	...	...	...	...	...	...	...
112	*China Peelown*	...	...	...	...	...	$1\frac{1}{4}$	3	...	290	...	...	...	...	...	...	...	...	...
113	*Soorlee Thaun*	...	...	...	...	...	$\frac{1}{4}$	...	...	125	...	...	...	...	...	...	...	...	...
114	*Dummas*	...	...	...	...	...	$\frac{1}{4}$	5	...	310	...	...	...	...	...	...	...	...	...
115	*Moocmall*	...	...	...	...	...	...	2	...	120	...	...	...	...	...	...	...	...	...
116	*Mooctay* cloth	...	...	...	...	...	$\frac{1}{2}$	$40\frac{1}{2}$	...	202	...	...	...	...	...	...	...	...	...
117	*China* handkerchiefs	...	...	...	...	...	$3\frac{3}{4}$	$36\frac{3}{4}$	...	1163	...	...	...	...	...	...	...	...	...
118	*Loongee*	...	...	...	...	...	$\frac{1}{4}$	2	...	4	...	...	...	...	...	...	...	...	...
119	Silk *Kittasauls* (umbrellas)	...	...	...	...	...	$\frac{1}{2}$	...	4	56	...	...	...	...	...	...	...	...	...
120	*China* ditto	...	...	...	...	...	$7\frac{1}{2}$	...	...	70	...	...	...	...	...	...	...	...	...
121	Canvas	...	...	...	...	...	6	...	...	180	...	...	...	...	...	...	...	...	...
122	Red *Dungree*	...	...	...	...	...	$2\frac{1}{2}$	4	...	88	...	...	...	...	...	...	...	...	...

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123 *Kinkop* (silk cloth)	...	...	...	...	...	...	2	...	100	...	...	...	...	...	...	...	...	...
124 *Umroo*	...	...	...	...	...	...	2	...	40	...	...	...	...	...	...	...	...	...
125 Silk *Woman's* cloth	...	...	...	...	...	...	91¼	...	940	...	...	...	...	...	...	...	...	...
126 *Kelkee* ditto ditto	...	...	...	...	...	...	21	...	147	...	...	...	...	...	...	...	...	...
127 *Howrunga Jubbee Thaun*	...	...	...	...	...	...	9	...	90	...	...	...	...	...	...	...	...	...
128 *Thod putree*	...	...	...	...	...	...	4	...	40	...	...	...	...	...	...	...	...	...
129 Turbans	...	...	...	...	...	1¼	66	...	1274	...	...	...	...	...	...	...	...	...
130 *Gunnee*, or sackcloth	...	...	...	...	...	...	...	44½	45	...	...	...	...	...	...	...	...	...
131 Glass	...	...	...	...	1	...	...	...	2	...	...	...	...	...	...	...	...	...
132 Pearl shells	...	...	...	...	...	...	...	511	22	...	...	...	...	...	...	...	...	...
133 *Rojahver Tubbucks*	...	...	...	...	...	...	...	28	42	...	...	...	...	...	...	...	...	...
134 Rose water bottles	...	...	...	...	...	1¾	...	2	37	...	...	...	...	...	...	...	...	...
135 *China* ware	...	...	...	...	...	16	...	111	431	...	...	...	...	...	...	...	...	...
136 Salt-fish bundles	...	...	...	...	...	...	...	2	4	...	...	...	...	...	...	...	...	...
137 Ditto by *Donies*	...	...	...	...	...	...	...	6	150	...	...	...	...	...	...	...	...	...
138 *Coomloo Mass* (a fish)	...	...	...	1¼	...	...	...	1500	50	...	...	...	...	...	...	...	...	...
139 Sheep and goats	...	...	...	...	...	...	...	2	4	...	...	...	...	...	...	...	...	...
140 Liquor pipes	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	109¾	...
141 Coco-nuts	...	...	...	...	...	...	...	172399	4000	...	...	...	...	...	...	...	48795	975
142 Country paper reams	...	...	...	...	...	...	...	60¾	607	...	...	...	...	...	...	...	...	...
143 *Betel-leaf* bundles	...	...	...	...	...	...	...	17¼	26	...	...	...	...	...	...	...	...	...
144 Sugar-cane	...	...	...	...	...	...	...	5300	43	...	...	...	...	...	...	...	6000	6000
145 *Cudjans* (coarse mats) bundles	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	150	2
146 Green plantains	...	...	...	...	...	...	...	18	5	...	...	...	...	...	...	...	4	60
147 *Bahder buttoo*	...	...	...	...	...	...	...	...	...	...	...	32¾	...	...	...	...	...	...
148 *Mummeeties*	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	200
149 Firewood boat loads	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	140	140
150 Basket bundles	...	...	...	...	...	...	...	10	1	...	...	...	...	...	...	...	13	52
151 Matts	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	25	12
152 *Buttoovah*	...	...	...	...	...	...	...	9	2	...	...	...	...	...	...	...	318	318
153 Sundry Curry-stuff bundles	...	...	...	...	...	...	...	19	39	...	...	...	...	...	...	...	5	12
154 Sandal-wood	...	...	...	...	...	...	...	...	...	...	...	803	6¼	5	...	...	...	64660
Total value in *Rupees*									44585									331532

CHAPTER XVII.

JOURNEY FROM THE ENTRANCE INTO KARNATA TO HYDER-NAGARA, THROUGH THE PRINCIPALITIES OF SOONDA AND IKERI.

1801. March 8. *Karnata Desam.*

MARCH 8th, 1801.—On leaving *Deva-kara*, the valley watered by the *Bidhati* becomes very narrow, and you enter *Karnata Desam*, which extends below the *Ghats*, and occupies all the defiles leading up to the mountains. *Karnata* has been corrupted into *Canara*; and the coasts of *Tulava* and *Haiga*, with the adjacent parts of *Malayala* and *Kankana*, as belonging to princes residing in *Karnata*, have been called the coast of *Canara*. The language and people of this *Desam* being called *Karnataca*, the Mussulmans, on conquering the peninsula, applied this name, changed into *Carnatic*, to the whole country subject to its princes, and talked of a *Carnatic* above the *Ghats*, and one below these mountains; although no part of this last division belonged to the *Karnata* of the *Hindus*. Europeans for a long time considered the country below the eastern *Ghats* as the proper *Carnatic*; and, when going to leave *Dravada* and enter the real *Karnata*, they talked of going up from the *Carnatic* to *Mysore*.

Appearance of the country.

After going two cosses near the river side, with stony hills to my right, I came to the first cultivated spot in *Karnata*. Here a small rivulet descends from the hills, and waters a narrow valley, which in the bottom is cultivated with rice, and on the sides is planted with *Betel* and coco-nut palms. For half a coss the road then passes through a forest of the kind which spontaneously produces black pepper. Beyond this I came to another narrow valley, that is watered by a perennial stream, and cultivated like the former. Afterwards I went about half a coss through a forest, where the ground is very level, and capable of being converted into rice fields. At the end of this I encamped in a third valley, which is called *Barabuli*, and like the two former is finely watered, planted, and cultivated. Near it is another hill that spontaneously produces pepper; and there are many such in this part of *Karnata*, especially in the *Yella-pura* and *China-pura* districts. These pepper-hills are miserably neglected. The vines are not tied up to one third part of the trees, and the whole ground is overgrown with brush-wood. From their moisture a delightful freshness prevails in these places;

and where they carefully cultivated, and the trees manured, I have no doubt, but that the pepper would be of a quality as good as any other. No tree should be allowed to grow in them, but such as are of some use; and of these the country spontaneously produces many; namely, two species of *Artocarpus*, *Teak*, blackwood, *Cassia*, wild nutmegs, *Caryota urens*, and the *Bassia*, with perhaps some others that escaped my notice. At present, however, these valuable kinds are not numerous, for they are overwhelmed by such as are totally useless. By the natives these pepper forests are called *Maynasu Canu*. The people here have no idea that any thing farther should be done to them, than once in three years to cut the bushes, and once annually to tie the vines to the young trees; and even these operations are much neglected. But, to make the most of such places, they ought to be carefully cultivated, no trees ought to be permitted to grow in them but such as are of use, and the vines ought to be manured as much as possible.

1801. March 8.

Mutti.

In all this day's journey, even where the soil was full of stones, the forests through which I passed were very stately. The *Mutti* (*Chuncoa Muttia*, Buch. MSS.) in particular grows to a prodigious size. The natives use the ashes of its bark to eat with *Betel*, in the same manner as in other parts quick-lime is employed. Fewer of the trees lose their leaves here than nearer the sea; for a freshness and moisture are kept up by the vicinity of the mountains, which every morning are involved in clouds.

Bidhati river.

The stream of the river is here slow, and its channel is filled with rocks and small islands. Owing to the quantity of rotten leaves that it contains, the water is dirty. From the straw and leaves which adhere to the trees high above the banks, it is easy to perceive, that in the rainy season it must be an immense stream, and must then rise between eight and ten feet above its present level, which in such a country will give it a most formidable velocity.

Climate.

The climate here, although very pleasant, is reckoned extremely unhealthy.

March 9. Road up the *Ghats.*

9th *March*.—I went what was called two *Sultany* cosses, to *Cutaki*; but this estimate is formed more from the difficulty of the road than the actual distance, which cannot be above five or six miles. At first I ascended close to the river, with a high hill immediately on my right. Soon after I came to the foot of the *Ghat*, where a fine stream enters from the south through some ground fit for cultivation; but of this no traces can be observed. I then ascended a very long and steep hill, sloping up by the sides of deep glens; and having gone a little way on a level ridge, I descended a considerable way into a valley, where there is a fine perennial stream. On the banks of this are some rice ground, and a wood which spontaneously produces pepper, and which is totally neglected. I then ascended a mountain, still longer and steeper than the first; and after a very short descent came to a small lake, and

1801. March 9. a building for the accommodation of travellers. Another short ascent brought me to a plain country above the *Ghats*, and immediately afterwards I came to *Cutaki*.

The road, although not so steep as that at *Pedda Nayakana Durga*, is by no means judiciously conducted, and no pains have been taken in its formation. Loaded cattle, however, can pass; and, by the natives of the peninsula, that seems to be considered as the utmost perfection that a road demands.

Soil and trees of the western *Ghats*. Here the western *Ghats* assume an appearance very different from that at *Pedda Nayakana Durga*, or *Kaveri-pura*. The hills, although steep and stony, are by no means rugged, or broken with rocks: on the contrary, the stones are buried in a rich mould, and in many places are not to be seen without digging. Instead, therefore, of the naked, sun-burnt, rocky peaks, so common in the eastern *Ghats*, we here have fine mountains clothed with the most stately forests. I have no where seen finer trees, nor any *Bamboos* that could be compared with those which I this day observed. The *Bamboos* compose a large part of the forest, grow in detached clumps, with open spaces between, and equal in height the *Caryota urens*, one of the most stately palms, of which also there is great plenty. There is no underwood nor creepers to interrupt the traveller who might choose to wander in any direction through these woods; but the numerous tigers, and the unhealthiness of the climate, would render any long stay very uncomfortable. About midway up the *Ghats* the *Teak* becomes common; but it is very inferior in size to the following trees, which unfortunately are of less value.

Tari, Myrobalanus Taria, Buch. MSS.

Jamba, Mimosa xylocarpon, Roxb.

Nandy, foliis oppositis, non stipulaceis, integerrimis, subtus tomentosis.

This is reckoned to make good planks and beams.

Unda Muraga, foliis oppositis, iutegerrimis stipulis inter folia ut in Rubiaceis positis.

Also reckoned good for planks and beams.

Mutti, Chuncoa Muttia, Buch. MSS.

Good timber.

Sampigy, Michelia Champaca.

The wood used for drums.

Shaguddy, Shaguda, Buch. MSS.

A strong timber.

Wontay, Artocarpus Bengalensis, Roxb. MSS.

The fruit is about the size of an orange, and is preserved with salt. Here it is used by the natives in place of tamarinds, which are much employed by the *Hindu* cooks.

Honnay, Pterocarpus santalinus, Willd.

The *Teak* in some parts of this district of *Yella-pura* is abundant, and in the rainy season may be floated down the river.

Below the *Ghats* the country consists of the *Laterite*, or brick-stone, so often mentioned; but it is much intermixed with granites, and talcose argilite, which seems to be nothing more than the pot-stone impregnated with more argill than usual, and assuming a slaty form. **1801. March 9.** *Strata of Kankana.*

The *strata* on the *Ghats* are much covered with the soil; so that it is in a few places only that they are to be seen. Having no compass, I could not ascertain their course; but, so far as I could judge from the sun in a country so hilly, they appeared to run north and south, with a dip to the east of about 30 degrees. Wherever it appears on the surface, the rock, although extremely hard or tough, is in a state of decay; and owing to this decay, its stratified nature is very evident. The plates, indeed, of which the *strata* consist, are in general under a foot in thickness, and are subdivided into rhomboidal fragments by fissures which have a smooth surface. It is properly an aggregate stone, composed of quartz impregnated with hornblende. From this last it acquires its great toughness. In decay, the hornblende in some plates seems to waste faster than in others, and thus leaves the stone divided into zones, which are alternately porous and white. I am inclined to think, that all mountains of a hornblende nature are less rugged than those of granite, owing to their being more easily decomposed by the action of the air. This rock contains many small crystallized particles, apparently of iron. *Strata on the Ghats.*

From the summit of the *Ghats* to *Cutaki*, the whole country is level enough for the plough, and the soil is apparently good; yet except in some low narrow spaces used for rice ground and *Betel-nut* gardens, there is no cultivation. *Cutaki* is a poor little village, with seven houses. Appearance of the country.

I perceive no difference in the temperature of air, on coming from the country below the *Ghats*; and, in fact, do not think that I have to-day ascended more than a thousand feet perpendicular height. This is perhaps the very lowest part of the mountains; but the country is said to rise rapidly all the way to the *Marattah* frontier. Height of the mountains.

Almost all the inhabitants of this neighbourhood are *Haiga Bráhmans*, who are a very industrious class of men, that perform all agricultural labours with their own hands. During *Tippoo's* government, thieves were in this vicinity very numerous; and many bands of a set of scoundrels, called *Sady Jambuty*, were then in the habit of coming from the *Marattah* country to plunder. The former have been entirely banished; but the *Sady Jambuty* still come in bands of twenty or thirty men, although not so commonly as in former times. On Mr. Monro's arrival, a thief of this country, finding that this was not likely to be a convenient place for his residence, withdrew to the *Marattah* territory, and formed an alliance with *Lol Sing*, a noted robber. With their united forces these two ruffians have made three incursions into this country. In their Robbers.

1801. March 9. last expedition, about twelve days ago, both were taken prisoners, and are now in confinement at *Hully-halla*. When these robbers make their attack, or are known to be in the neighbourhood, the *Bráhmans*, and other peaceable inhabitants, retire from their houses with their effects, and even during the rainy season conceal themselves in the forests; for pestilence, or beasts of prey, are gentle in comparison with *Hindu* robbers, who, in order to discover concealed property, put to the torture all those who fall into their hands.

March. 10. Appearance of the country.

10th *March.*—I went four cosses to *Yella-pura*. The first part of the road led through a forest spontaneously producing pepper. The trees and soil are very fine; but owing to a want of cultivators, according to the report of the inhabitants, not above one fourth of the pepper is procured from it that ought to be. This forest is intersected by narrow vallies of rice ground, with a few gardens well supplied with water from springs and rivulets. I afterwards passed through a very hilly country; but the hills are of no considerable height, and in general the soil is apparently good. The trees, however, are not so large as where the pepper grows; and it is universally agreed, that the plant will not thrive in any forest but where it is found spontaneously growing. Many places among these hills are so level that the plough might be employed; and I suppose they might be cultivated for *Car' Ragy*, as is done in similar situations at *Priya Pattana*; but the people say, that unless the ground has been formed into terraces, the rains here are so heavy as to sweep away the seed. The rains in general are fully adequate to produce one crop of rice from any land properly levelled; and therefore it might be thought that by far the greater part of the country here might be cultivated for rice; but the people have an idea that no part of the country is fit for that purpose, but what has been already cultivated. Even of this, owing to a want of cultivators, three-fourths are at present waste. The gardens being more profitable, and being also private property, are better occupied; and not above one-quarter of them have gone to ruin.

Yella-pura and its district.

Yella-pura is the residence of a *Tahsildar*, and contains a hundred houses with a market (*Bazar*), which is tolerably well supplied; but every kind of grain is dearer here than at *Seringapatam*.

The *Tahsildar* gives me the following account of his district. Near the *Ghats* cultivation is confined to pepper and *Betel* gardens, and to rice fields, in which, as a second crop, a little *Hessaru* (*Phaseolus Mungo*) is raised, and occasionally a little sugar-cane. In the eastern parts toward *Hully-halla*, *Sambrany*, *Madanuru*, *Mundagopu*, and *Induru*, the woods consist mostly of *Teak*, and there are no gardens. The cultivated articles on low lands are rice, *Carlay* (*Cicer Arietinum*), and *Horse-gram* (*Dolichos biflorus*), and on the dry-field *Ragy* (*Cynosurus Corocanus*), and *Ellu* (*Sesamum*). The soil every where is tolerably free from stones. Although the rains are not so heavy as below the *Ghats*, they are sufficient on level and to bring to maturity one crop of rice. Little attention is paid

here to the tanks; and they are rather dams to collect the water of small streams, or of springs, and to distribute it to the fields and gardens, than reservoirs to collect the rain water. 1801. March. 10.

Maynasu Canu, or forests containing spontaneous pepper.

The *Haiga Bráhmans* say, that all the forests spontaneously producing pepper, with the gardens and rice fields intermixed, are their private property. By an old valuation, a separate land-tax is affixed on each kind of ground; but on most of the properties, on account of the depopulated state of the country, from one half to three-fourths of what was exacted by the *Rayaru* have been relinquished. To manage a *Maynasu Canu* properly, requires the following labour. Once a year the branches of the pepper vines must be tied up to the trees, and these must be freed from all climbing plants, especially the *Pothos scandans,* Lin., and the *Acrosticchum scandens,* Buch. MSS., both of which climb to the tops of the highest trees. Every third year all the bushes ought to be cut down; and every fifth year the side branches of the trees should be lopped, to render them proper supports for the vine, which thrives best on slender straight trees. Where the trees are too distant, a branch or cutting ought to be planted; and if no young shoot of the pepper is near, a cutting or two of the vine should be put into earth near the young tree. The pepper vine thus managed lives about ten years; when it dies, another young shoot must be trained up in its stead. In doing this, care must be taken to select shoots of a good kind; for, as the birds drop all the seeds promiscuously, shoots of the three different kinds of pepper are to be found in these woods. These three kinds are *Cariguta, Bily Maynasu,* and *Vocalu.* The first kind is the best; not that there is any difference in the quality of the pepper, but the *amenta* of the two last kinds contain very few grains. I have had no opportunity of determining, whether the difference consists in sex, species, or variety; but the natives, by examining their leaves, can distinguish the different kinds. Every kind of tree is reckoned equally fit for supporting the pepper vine; but, where the woods are too thin, the tree commonly planted is the *Bondu Bala,* because it easily takes root. As the produce could not be secured from the monkies, no fruit trees are planted. When the trees are about three cubits distant from each other, and are of a middling size, the vines thrive best. Very large trees do not answer for the pepper, but are said to be of advantage by giving shade. In fact that they are very common; but I imagine more owing to the trouble of cutting them, than to any advantage that they are of to the pepper. In order to prevent the havoc which would be occasioned by the natural decay and fall of one of these immense trees, when they observe one beginning to wither, the natives cut off its branches and a circle of bark from the bottom of the stem; by this means it decays gradually, and rots without falling down in a mass, owing to the weight of its branches. Except this rotten wood, no manure is used. Most of these steps, which I have now enumerated, are in general very much neglected. The pepper of a *Maynasu Canu* is

1801. March. 10.

reckoned somewhat inferior to that raised in gardens, which I consider as arising merely from a want of proper cultivation and manure. In a *Maynasu Canu,* a tree, although much larger than one in a garden, produces only one *Catcha Seer*; while the one in the garden usually produces double that quantity. A man collects in the day the produce of twenty trees, or rather more than 12 lb., and at the same time he ties up the branches, which is all the annual labour required. He ascends the tree by means of a ladder of *Bamboos,* some of which are forty cubits long.

March. 11. Face of the country.

11th *March.*—I went four cosses to *Caray Hosso-hully*; that is, the new village at the tank. The whole country, so far as I saw, was totally uninhabited, and very few traces of former cultivation observable. A few narrow vallies seem once to have been under rice. The higher grounds, I suspect, have been always a forest; although, from the stateliness of the trees, the soil would appear to be good, and in its present state much of it is not too steep for the plough, while no part seems incapable of being formed into terraces, as is done below the *Ghats.* In a small portion near *Yella-pura,* the trees of the forest were stunted, and from a want of moisture had lost their leaves; but in the greater part they were very luxuriant, and many of the kinds were, to me at least, quite unknown. In my botanical investigations, however, I had very little success; for the cutting down one of these trees is a day's work for four or five natives; and at *Yella-pura* I could procure nobody that would climb to bring me specimens. The vast number of ants, indeed, that live on the trees in India, render this a very disagreeable employment.

Caray Hosso-hully.

Caray Hosso-hully is a miserable village of six houses, collected by Major Monro as a stage between *Yella-pura* and *Soonda*; for, on his taking possession of the country. the whole way was through a continued waste. The nearest inhabited place to *Hosso-hully* is two cosses distant. The new settlers are *Marattahs,* by which appellation in the south of India the *Sudras* of *Maharastra Desam* are known. Since the conquest, many of these people have come into this province; and many more would come, were small advances made to enable them to commence cultivation: for the desolation here has introduced a wildness equal to that of an American forest. The huts here are wretched, but the people have already cleared some ground. Throughout the forests of *Soonda,* tigers and wild buffaloes are very numerous, but there are no elephants.

Irrigation.

The reservoir here has been a very fine one, and never becomes dry; but it is now so filled with bushes and long grass, that to put it in proper repair would require a thousand *Pagodas.* Its water never was employed for the cultivation of rice, but was used only to bring forward the young shoots of sugar-cane, which, till the setting in of the rainy season, require irrigation.

Bidhati river.

About two-thirds of the way from *Yella-pura* to *Hosso-hully,* I crossed the *Bidhati-holay,* which goes north, and joins a river coming

from *Supa* to form the *Sedasiva-ghur* river. Its channel is wide, and in the rainy season is probably full, but at present it contains very little water. 1801. March. 11.

The *strata*, laid bare by the river, are of the same nature with those on the *Ghats*; but their dip toward the east is greater. *Strata.*

12th *March*.—I went three cosses to *Sancada-gonda*. Immediately after setting out, I crossed a small branch of the *Bidhati*, which is called *Baswa-holay*; and still farther on I crossed another, named *Gudialada-holay*. The whole country is waste, and covered with forest. The soil almost every where appears to be excellent, with more low vallies, and more vestiges of former cultivation, than on the route of yesterday. This valley land is here called *Taggu*, and the rice growing on it requires five months to come to maturity. The higher lands are called *Mackey*, and the highest arable land is called *Bisu*. The rice cultivated there requires only three months to come to maturity. *Sancada-gonda* contains three houses, with some pretty rice lands in a good state. Not far from it are two other villages, each containing four houses, with some rice land and gardens. These villages subsisted during all the trouble of *Tippoo's* government, and belong to the *Guru* of all the *Haiga Bráhmans*, who resides at *Honawully Matam*, in *Soonda*, pays the land-tax, and lets his lands to some of his disciples. March. 12. Appearance of the country.

13th *March*.—I went three cosses to the place which Europeans and Mussulmans call *Soonda*. In the vulgar language of *Karnata* it is called *Sudha*, which is a corruption from *Sudha-pura*, the *Sanskrit* appellation. The road was very circuitous; as I went first about south-west, and afterwards almost east. The hills are much steeper than those on the last two days route, and of course are less fit for the cultivation of rice; but there are many deep and narrow vallies fit for *Betel-nut* gardens; and several of these, within or near the old walls, are now occupied, and filled with *Haiga Bráhmans*, who in this country are the sole cultivators of gardens. In many places I observed the pepper growing spontaneously; but it is entirely neglected; and many of the trees that would bear it are stript of their leaves and branches, which are used as manure for gardens. All the rivulets that I crossed to-day are said to be branches of the *Salumala*, which comes from *Sersi*; and on going below the *Ghats* assumes the name of *Gungawali*, and forms the boundary between *Haiga* and *Kankana*. March 13.

I sent a message to the *Guru* of the *Haiga Bráhmans*, offering to visit him; but this he declined, and sent me word, that he would come to my tents at three o'clock, at which time he would have finished his devotions which then occupied his time. He did not however arrive until late in the evening, when I was eating; so that he could not enter. I found, that in place of prayer he had been employed in giving an entertainment to another *Sannyasi*; and I am uncertain whether he thought that it would be consistent with his dignity to keep a European four or five hours in waiting; or whether *Guru of the Haiga Bráhmans.*

1801. March. 13.

these persons, who had relinquished the vanity of worldly pleasures, were detained so long at table by pious conversation.

Haiga Bráhmans.

The *Haiga Bráhmans* seem to have changed countries with the *Karnataca Brahmans* of *Sudha*, who in *Haiga* are in greatest estimation, while the *Bráhmans* of that country have all the valuable property in *Sudha*, and their *Guru* has taken up his abode in its capital, at *Honawully Matam*, or the golden convent. Whatever truth may be in the story of *Myuru Verma*, the *Haiga Bráhmans* were certainly the first of the *Panch Dravada* division who penetrated among the *Jain* of these parts. It seems to have been with the view of depriving them of their property, that the pretence of their having lost a part of their caste, or rank, was set up by the subsequent intruders, who followed the conquests of the *Vijaya-nagara* monarchs. The character which the *Haiga Bráhmans* use in writing books on science, is the *Grantha* of *Kerala*, which they say includes all the countries created by *Parasu Rama*. The *Haiga Bráhmans*, however, consider the *Karnata* language as their native tongue ; and all accompts and inscriptions on stone, whether in the vulgar language or in *Sanscrit*, are written in the *Karnata* character, which is nearly the same with the *Andray*, or old writing of *Telingana*.

Account of the *Rajas* of *Sudhapura* by their *Guru*.

While I was waiting for the *Sannyasis*, I assembled the most learned men of the place, among who was the hereditary *Guru* of the *Rajas*, who has a written account of the family of *Sudha*, with a copy of each prince's seal. These men said, that in the time of the father of *Krishna Rayaru* this country belonged to *Jain Polygars*, the descendants of the *Cadumba* family ; which strongly confirms the assertion of the *Jain* of *Haiga*, when these said that *Myuru Verma* was of their sect. These *Polygars* managed the country as usual, and paid tribute to *Vencatuppati Raya*, the father of *Acynta* and *Krishna Rayalu*, and who was their predecessor on the throne of *Vijaya-nagara*. This however, is probably a mistake ; as from an inscription at *Gaukarna*, already mentioned, it would appear, that the name of *Krishna Raya's* father was *Sedasiva*. *Vencatuppati* having for many years obtained no children, promised the whole of his kingdom to his sister's son *Arasuppa Nayaka* ; but, having afterwards had two sons born to him, he gave to the young prince his nephew, the full sovereignty of *Sudha*. This warrior governed from the year of *Sal.* 1478 (*A. D.* 155$\frac{5}{6}$) till 1521 (*A. D.* 15$\frac{8}{9}$). He built *Sudha-pura* ; and having destroyed all the *Jain Polygars*, and the priests of these heretics, he brought up the *Haiga Bráhmans* to occupy the waste lands. He was succeeded by his son, *Ram Chandra Nayaka*, who governed till 1541 (*A. D.* 161$\frac{8}{9}$). He was succeeded by his son, *Ragunata Nayaka*, who governed till 1561 (*A. D.* 165$\frac{8}{9}$). His son, *Mapu Linga Nayaka*, became a follower of the *Sivabhactars*, and governed till 1597 (*A. D.* 167$\frac{4}{5}$). He was succeeded by his son, *Sedasiva Raya*, who governed till 1620 (*A. D.* 169$\frac{7}{8}$) ; he by his son, *Baswa Linga Raja*, who governed till 1668 (*A. D.* 174$\frac{5}{6}$) ; and he by his son, *Imody Sedasiva Raja*, who was ex-

pelled by *Hyder* in 1685 (176$\frac{2}{3}$), and tock refuge in *Goa*, where his son is now living on a pension from the viceroy. 1801. March 13.

During the government of these *Rajas* the country is said to have been cultivated, and the town to have been very large. The space within the walls is said to extend each way a coss, or at least three miles, and was fully occupied by houses. The country, having been repeatedly the seat of war between *Hyder* and the *Marattahs*, has been desolated, and the houses in the town are now reduced to about fifty. In the reign of *Imody Sedasiva*, the town suffered much from an attack of the *Marattahs*; but, when *Hyder* took possession of it, there still remained 10,000 houses. The original territories of the family seem to have been the four districts (*Talucs*) above the *Ghats*, now under the management of Mr. Read; and, according to the *Guru*, they acknowledged no superior. From the *Vijaya-pura Sultans*, *Sedasiva*, grand-father of the last *Rájá*, conquered five districts (*Pansh-malu*) in *Kankana*. *Imody Sedasiva*, as has been already stated, was attacked by the *Marattahs*, and forced to pay tribute (*Chouti*). Till he was able to collect the sum demanded, the *Pansh-malu* were given in pledge to a *Marattah* chief named *Gopal Row*, who restored them when the money was paid. On *Hyder's* attack, the *Rájá* resigned the *Pansh-malu* to the viceroy of *Goa*, who settled on him an annual pension of 12,000 *Putlis*, or *Venetins*, equal to 48,000 *Rupees*. This his son now enjoys; and he has besides some houses, and gardens, befitting his rank. These five districts are said to be worth annually 80,000 *Rupees*, and seem to have been the remnant of the five larger districts, and at one time governed by the *Vazir* of *Ponday*, after what now composes the *Ancola* district (*Taluc*) had been wrested from the Mussulmans, and *Rajas* of *Sudha*, by the *Sivabhactars* of *Ikeri*.

Although in many points this account seems to be true, it is by no means accurate, as I learned from inscriptions found at this place. Those of which I was able to take any account to-day are as follow: Inaccuracies in this account, shown from inscriptions.

The most ancient inscription here is at a *Jain* temple (*Busty*) dedicated to *Adeswara*, the first of the gods (*Sidaru*). It is dated in the year of *Sal.* 722 (*A. D.* $\frac{799}{800}$), and in the reign of *Imody Sedasiva Raya*. This being the name of the last *Raja* of *Sudha*, it might at first sight be supposed, that he was the prince mentioned in the inscription, the thousand years of the era having been omitted in the date, as is sometimes done among the *Hindus*; but this, it must be observed, would bring down the date to the year of our Lord 1$\frac{799}{800}$, and the donation is made to a *Jain* temple that has been long in ruins, and to a sect abhorred by the last dynasty. Besides, it is said that the titles used in the inscription are totally different from those used by the late *Rajas* of *Sudha*, and are of a much higher nature.

The next inscription in antiquity is at a *Jain Matam*. A copy of this, as of the preceding, has been delivered to the Bengal government. It is dated in the year of *Sal.* 727, or *A. D.* 80$\frac{4}{5}$, and in

1801. March 13. the reign of *Chamunda Raya*, who has very high titles, like those of his predecessor, and is styled the chief of all the kings of the south. He mentions the advantages that had been gained over the followers of *Buddha*, by two of his ancestors, *Sedasiva* and *Belalla*. These two inscriptions, therefore, belong to the dynasty of the *Belalla Rayas*, monarchs of *Karnata*. *Ramuppa Varmica* makes the overthrow of that dynasty, as supreme monarchs, to have happened in the year of Christ 78$\frac{2}{3}$; but here we find them governing in the northern parts of *Karnata*, 22 years afterwards. Although this is an inaccuracy, yet the difference is so small, that the era of the government of the *Belalla* dynasty may be considered as ascertained to have been in the eighth century of the Christian era. The *Jain* religion was then the predominant one in the peninsula, and had been produced by that of *Buddha*, whose followers were then persecuted by the *Jain*, as these again were afterwards by the followers of *Vyasa*.

The third inscription, of which a copy has also been delivered to the Bengal government, is placed in a *Jain Matam*, and is dated in *Sal.* 1121, or *A. D.* 119$\frac{8}{9}$ in the reign of *Sedasiva Ráyá* of *Sudhapura*; which shows, that this town was not founded by *Arasuppa Nayaka*, but had many centuries before his time been the residence of a *Jain Raja*. *Sedasiva* does not acknowledge any superior, but he does not arrogate to himself such high titles as those used in the two last mentioned inscriptions. He is very lavish in praise of his *Guru Sri Madabinara Butta Calanca*, who (that is to say, his predecessors in the same *Matam*) had bestowed prosperity on *Belalla Ráyá*. Whether this *Sedasiva* was a descendant of the *Belalla* family, as this would incline one to think, or whether he was descended from the *Cadumba* family, as the *Guru* here supposes, is uncertain.

There are here two inscriptions by *Imody Arasuppa*, founder of the last dynasty of *Sudha Rájás*. The one is on a stone at *Honawully Matam*. The whole almost is in couplets, few of which are to be found in the inscriptions of an early date. The time of this inscription is involved in one of these *conceits*, of which I have not procured the explanation. The other inscription is at a *Matam* belonging to one of the *Udipu Sannyasis*. It is dated in the year of *Sal.* 1515, or *A. D.* 159$\frac{2}{3}$, which confirms the chronology of the family *Guru*. The donation contained in the inscription is made by *Arasuppa Nayaka*, *Raju* of *Sudha*, by the appointment of *Sri Vira Prubu Vencatuppati*, his superior, who gets all the titles usually bestowed on the sovereigns of *Vijaya-nagara*. This in the first place, shows that the *Rajas* of *Sudha* were not independent, but for a time governed, at least nominally, as vassals of the kings of *Vijaya-nagara*. Indeed, the first four persons of the family assumed only the title of *Nayaka*, which is that usually given to *Polygars*. In the year 1674, *Sedasiva* assumed the title of *Raya*, 38 years after the *Ikeri* family had thrown off all form of respect for their ancient

lords. This inscription also shows, that *Vencatuppati* could not have been the father of the celebrated *Krishna Rayaru*; as he lived after the reign of that monarch. In fact, the date of this inscription is after the period assigned for the destruction of *Vijaya-nagara* by *Ramuppa*; and *Vencatuppati* was probably some person adopted to support the falling dynasty after the death of *Rama Rájá*, and conjoined in the government with *Sedasiva*, usually reckoned the last king of *Vijaya-nagara*. 1801. March 13.

14th *March*.—I went four *Sultany* cosses to *Sersi*. The outermost wall of *Sudha* was at least six miles from where I had encamped, and is said by the natives to be sixteen cosses, or at least forty-eight miles, in circumference. There are three lines of fortification round the town. The extent of the first, as I have already observed, was estimated by the natives at three miles square, and the whole space that it contained was closely occupied by houses. In the two spaces surrounded by the outer lines, the houses were formerly scattered in small clumps, with gardens between them. March 14. Former extent of *Sudha*.

From the outer gate of *Sudha*, till I reached *Sersi*, I saw neither houses nor cultivation; but it was said, that there were villages in the vicinity of the road. The country is more level than that through which I came yesterday. In two places the trees of the forest were covered with pepper-vines; but these were entirely neglected. *Sersi* is a small village, but it is the residence of the *Tahsildar* under whom *Sudha* is placed. It is not centrical for the district, but is chosen on account of its being a great thoroughfare, and as having a very considerable custom-house. It has a small mud fort, in which nobody resides, although robbers are still troublesome; but to live in forts is not the custom of *Sudha*. Near it are the ruins of a fortress, which was built by *Ram Chandra Nayaka*, the second prince of the last dynasty. It is called *Chinna-pattana*, the same name with that of the city which we call *Madras*. Appearance of the country.

The hereditary accomptant (*Shanaboga*) of the place says, that his brother is now with *Baswa Linga Raja*, the son of *Imody Sedasiva*, at *Goa*, and confirms the account given by the *Guru*. He says also, that an enumeration of all the houses of the country was taken, in order to levy a tax for discharging the tribute which the *Marattahs* exacted. *Sersi* then contained 700 houses, and *Sudha* 100,000; but with the amount of the whole population of the country the accomptant is not acquainted. The population of the capital consisted of the court and army, with their followers; for it would appear, that the country never possessed any manufactures. The country must have been then very well cultivated, and rich, to be able to support such a capital, whose inhabitants, if this account be true, were then at least three times as numerous as the present people of the whole territory: but the account is probably exceedingly exaggerated. Former population.

From a garden on the west side of *Sersi*, the *Sálamala*, or *Gangawali* river takes its rise; and on its east side, from a *Tank* called Source of two rivers

1801. *Aganasini,* issues a river of the same name, which in the lower part of its course is called the *Tari-holay.*

March 15. Cultivation in the western parts of *Soonda.*

15th *March.*—I continued at *Sersi,* taking an account of the state of the country, as an example of the western parts of *Soonda,* in which the cultivation of gardens is the chief object of the farmer.

Gardens situation.

In these gardens are raised promiscuously, *Betel-nut,* and *Betel-leaf,* black-pepper, cardamoms, and plantains. A great part of the ground formerly planted has now become waste, and there is some fit for the purpose that would appear never to have been cultivated; but it is only a small proportion of the whole country that can be employed in this way, and that is chiefly in the vicinity of the *Ghats.* Toward the eastern side of the province there are very few gardens. The situation required is a low narrow valley, with its head to the west, and opening toward the east; so that the hills by which it is bounded may defend it from the west and south sun. To add to the shelter, the hills in these directions must be covered with high trees. The hills on the north side of the valley must also belong to the garden, and must be covered with trees, which are annually pruned to procure branches that serve as manure. At all seasons the garden must command a supply of water. This commonly is obtained from springs, which are numerous in this country at the head of almost every little valley. The water of these springs is collected in a small pond or reservoir, from whence it can at pleasure be let out by a channel which is conducted along the upper side of the garden. Water is also procured by forming channels from the small rivulets with which the country abounds. Some rich men fill up the whole bed of one of these rivulets, and form their plantation in the place where it was. They have thus at its upper end a reservoir formed of the remaining part of the old channel, and by one side of the garden they draw a canal to carry off the superfluous water. This incurs a very considerable expense, not only in filling up the channel, but in giving the reservoir and canal a strength sufficient to resist the torrents of the rainy season. The best soil for these gardens is the *Cagadali,* a red mould containing very small stones. I observe, however, that all kinds of soil are used. The prevalent one throughout the country is a light-colored loam of great depth.

Formation of a new garden.

The first step in the process of making a new garden is, to surround it by a ditch, to keep off the torrents which descend from the hills. The garden is then levelled with the hoe, and the whole is formed into beds, about twenty feet wide, by drains, which are parallel to each other, and run in the direction of the length of the valley, or nearly east and west. These drains are intended to carry off superfluous moisture, and in some gardens to carry away water that at all seasons springs up from the soil wherever it is opened. The soil where this abounds is reckoned by far the best; but the water itself is very pernicious, and nothing would grow unless it were carefully removed by the drains. These are about a foot broad, and, according to the natural moisture of the soil, are from a foot

to eighteen inches deep. At the same time must be formed the reservoir or canal for giving the supply of water, with the channels in which it is to run. The principal channel runs at the head of the garden, and crosses the direction of the drains. From this a small channel leads between every two drains, in the centre of each bed. Such is the disposition of some of the gardens that I examined; but, according to the various declivities in different gardens, it must be varied considerably. The season for performing this labour is during the two months which precede the autumnal equinox. 1801. March 15.

In the month following the autumnal equinox, young plantain trees are set in rows, within two feet of each side of the drains, and at the distance of twelve feet from each other. If possible, the whole garden should then be covered with branches of the *Nelli* (*Phyllanthus Emblica*); at any rate, some must be put near each young plantain tree; and at the same time the centre channel of each bed must be raised a cubit high, with earth brought from the neighbouring hills. When the rainy season is over, the earth is spread upon the bed, the channel is formed anew, and every fifteen days water is given once. In the operation of watering, the channel is first filled; and then, with a pot or scoop, some water is thrown on the roots of the trees.

Betel-nut palm, or Areca.

In the same season of the second year, a pit, of a cubit square and of the same depth, is made between every two plantain trees. In each pit is placed a young *Areca*, which is taken up from the seed-bed with much earth adhering to its root. The pit is filled with fresh earth, which is trampled down by the foot; so that one half of the pit becomes empty, and is afterwards filled with the leaves of the *Emblica*. At the same period of every even year, that is, the second, fourth, sixth, and so forth, the channels of every bed must be filled with fresh earth. In the month preceding the winter solstice, the beds must be levelled; and, new channels having been formed, the trees must be watered once every fifteen days. In the second month afterwards, the bed must be hoed, and each tree manured with rotten dung taken from the cow-house, where the litter used has been either fresh leaves or dry grass. Above this are spread the small branches and leaves of any kind of trees, and towards the root of every *Areca* a quantity of these is heaped up. In the month preceding the summer solstice, to prevent the rains from washing away the manure, the beds are covered with plantain leaves. In the uneven, or intermediate years, nothing is done in the garden, but to clear the drains and channels, and in the dry season to give the trees water. Each garden therefore is divided into two parts; in the first year one half is formed, and in the year following the other is planted.

The *Betel-nut* palm, or *Areca*, in thirteen years after it has been planted, begins to produce fruit, and in five years more arrives at perfection: it lives from fifty to a hundred years; and, when one dies, another from the nursery is put in its place. There is only one kind,

1801. March 15. The nursery is managed as follows. In the month preceding the vernal equinox the seed is ripe. After having been cut, it is kept eight days in the house. In the mean time a bed of ground in a shady place is dug, and in this the nuts are placed nine inches from each other, and with their eyes uppermost. They must be covered with a finger breadth of earth. The bed is then covered with dry plantain leaves, and once in eight days is sprinkled with water. In the month preceding the summer solstice, the plantain leaves are removed, and young shoots are found to have come from the nuts. In the second month afterwards, leaves of the *Emblica* are spread between the young plants. In the month preceding the vernal equinox, they get a little dung. In the dry season they are watered once in from four to eight days, according to the nature of the soil. They are not removed till they are going to be finally planted in the garden, which is done in their fifth year. They are then estimated worth one silver *Fanam* a hundred, 5½ *Fanams* going to the *Rupee*; but they are seldom sold, any man lending to his neighbour when he may be in want of a few.

The crop season of an *Areca* garden continues from two months before, till one after, the winter solstice. The bunches are cut as they approach to ripeness, for the ripe nut is of no use except for seed. The husk is removed with a knife. A decoction is then made with a few nuts, a little *Chunam* (ashes of the bark of the *Chuncoa Muttia*, Buch. MSS.), and some bark of the *Honay*, or *Pterocarpus santolinus*. These are bruised together, and are boiled six hours in water. A quantity of the nut cleared from the husk is then put in a pot, and into this the decoction is poured, until it rises above the nuts, which are then boiled till the eyes separate. They are now put upon a strainer of mats supported on posts, and are dried six days in the sun. At night they are covered with a mat. In this country the *Betel-nut* is never cut, but is sold entire, and is called red *Betel*. Any nuts of a bunch, that have become too ripe before it was cut, are picked out and kept separate. Their husks are removed, and they are dried in the sun without boiling. These are called raw *Betel*, and sell much lower than the other kind.

From the month preceding the winter solstice, to that following the vernal equinox, the leaves of the *Areca* fall off. Each is accompanied by its broad, leathery, membraneous petiole; which, when they are young, form collectively a green smooth body at the top of the stem. These membranes are cut off, and carefully preserved. They are about three feet long, and a cubit broad; and, in the rainy season, are used to make covers for the young bunches, or *spadices*. In the month following the summer solstice, a man mounts the *Areca*, and above every branch fixes a cover, so as entirely to keep off the rain. Some of the trees are so tall and slender, that they cannot bear the weight of the operator, and thus are deprived of covers. On these the bunches produce only from five to a hundred

nuts, while two hundred nuts are reckoned the average produce of a covered bunch, and some bring five hundred to maturity. Each tree commonly yields two good bunches, or three small ones. The average produce is said to be 1 *Maund*, or 72 *Seers* of boiled nut from fifty trees, or from each $\frac{9148}{10000}$ parts of a pound. A particular set of men are employed to cover the bunches, and cut down the fruit. At each time they get two *Rupees* for every thousand bunches, and are very dexterous. Round their ancles, and under their soles, they fix a rope made of plantain stems, and thus unite their feet, which are then placed against the stem, and drawn up together, while the climber holds on with his hands. Having placed the rope and his feet firm against the stem, he first moves up one hand, and then the other, and afterwards draws up his feet again. In this manner he reaches the top of one tree, where he secures himself by taking a round turn with a rope, which he carries up in his hand. One end of this rope is tied to the middle of a short stick, upon which the man seats himself, and performs his labour, drawing up whatever he wants, from an attendant below, by means of a line that he has fixed to his girdle. When he has done with one tree, he unties his seat, secures it round his neck, and swings the tree backwards and forwards, till he can reach another, upon which he then throws himself, and again makes fast his seat. He thus passes over the whole garden, without ever coming to the ground. The trees that, from being too tall and slender, are unable to support a man's weight, have their fruit gathered by being pulled towards a neighbouring tree by means of a hook. The cultivators seem to under-rate the produce very much.

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Black pepper.

When the *Betel-nut* palm is thirteen years old, the garden is planted with either black pepper, or *Betel-leaf* vines, which climb upon the *Areca*. The pepper, as I have already mentioned, is of three kinds. The *Cari Maynasu* is the most productive, but requires a *Cagadali* soil. In this, the produce of a good tree covered with *Cari Maynasu*, is reckoned five *Seers* of cured pepper, or a small fraction more than three pounds. The *Sambara* and *Arsina gutti* thrive very well on *Arsina Munnu*, or a light-coloured soil; but the first produces only one *Seer*, and the latter two. The quality of all the kinds is the same. In the month following the vernal equinox, four cuttings of the pepper vine, each a cubit and a half in length, are taken for every *Areca*. One of their ends is buried five or six inches in the ground, the other is tied to the stem of its supporter. The vine requires no farther trouble, but tying its branches up once a year in the month preceding the summer solstice. It bears in six or seven years, and lives about twenty-five; so that one *Areca* requires three or four sets of vines. The crop season is during the two months which precede the vernal equinox. The fruit is collected by means of ladders; and a man does not collect, and cure, in a day more than five *Seers*, or three pounds. The pepper, as usual, is gathered when the grains are full grown, but not ripe. Here the *amenta* are gathered into a heap, which stands in the house, and

1801. March 15. there they are kept three days. They are then rubbed with the foot; and the grains, having been separated from all other matter, are then fit for sale.

White pepper. A little white pepper is made by allowing the berries to ripen. The bunches, having been kept three days in the house, are washed and bruised in a basket with the hand, till all the *amenta* and pulp are removed. The seed is then dried five days, and is fit for sale. It is twice as dear as black pepper, but the demand for it is very small, for it is used only as a medicine.

Betel-leaf. The *Betel-leaf* is cultivated exactly like the pepper, and lives the same length of time. In this country, the *Nagwally*, or female plant, for it is *diœcious*, is that chiefly used; but the *Umbadi*, or male, may also be found. Here both frequently produce fructification, which I have not seen any where else. A thousand leaves of the *Nagwally* sell for 8 *Dubs*, while the same number of leaves of the *Umbadi* bring only one fourth part of that sum.

Whenever the *Betel* and pepper vines have fairly taken root, the greater part of the plantain trees are removed.

Cardamoms. The cardamoms (*Amomum repens*) are propagated entirely by cuttings of the root, and spread in clumps exactly like the plantain tree, or *Musa*. In the month following the autumnal equinox, a cluster of from three to five stems, with the roots adhering, are separated from a bunch, and planted in the same row, one between every two *Betel-nut* palms, in the spot from whence a plantain tree has been removed. The ground around the cardamom is manured with *Nelli* (*Emblica*) leaves. In the third year, about the autumnal equinox, it produces fruit. The capsules are gathered as they ripen, and are dried four days on a mat, which during the day is supported by four sticks, and exposed to the sun, but at night is taken into the house. They are then fit for sale. Whenever the whole fruit has been removed, the plants are raised, and, all the superfluous stems and roots having been separated, they are set again; but care is taken never to set a plant in the spot from whence it was raised, a change in this respect being considered as necessary. Next year these plants give no fruit, but in the year following yield capsules again, as at first. After transplantation the old stems die, and new ones spring from the roots. Each cluster produces from one quarter to one *Seer* weight of cardamoms, or from $\frac{15}{100}$ to $\frac{6}{10}$ of a pound.

Tenures. All these gardens are private property, and all belong to *Haiga Bráhmans.* When a man wishes to make a new one, he fixes upon a spot, which must not only contain room for the trees, but must have hills for shelter, and for supplying manure, and a place for the house and kitchen garden. When a proper situation has been found, the planter purchases the whole from the government. The usual price has been ten *Pagodas*, or forty *Rupees*, for every thousand trees planted. For twelve years they pay no land-tax; on the thirteenth year, every thousand trees paid, on a good soil, three *Pagodas*; and every year, until the eighteenth, an additional tax of three

Pagodas was imposed. Afterwards the thousand trees, on a good soil, paid yearly twenty *Pagodas*; on a bad soil, the tax was only ten *Pagodas* a thousand. Nothing was exacted for the plantains, pepper, *Betel-leaf*, or cardamoms. If the proprietor become poor, and be not able to cultivate his garden, so that it runs to waste, he informs the officers of revenue, who sell the ground, and give him the price. He may sell the garden when he pleases. This property is never mortgaged. *Tippoo* raised the land-tax; owing to which burthen, and other troubles, many of the gardens are now waste. Major Monro reduced the rent to the old standard; but as yet no new gardens have been formed, and the people are expecting some farther indulgence before they begin to plant.

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Labour.

In this country a few slaves are kept; but most of the labour, even in the grounds of the *Bráhmans*, is performed by the proprietors, or by hired servants. The *Haiga Bráhmans* toil on their own ground at every kind of labour, but they never work for hire. The hired servants seldom receive any money in advance, and consequently at the end of the year are free to go away. No warning is necessary, either on the part of the master or of the servants. These eat three times a day in their master's house, and get annually one blanket, one handkerchief, and in money 6 *Pagodas*, or 48 *Rupees*, or 2*l*. 8*s*. 4¼*d*. Their wives are hired by the day, and get 1½ *Seer* of rough rice, and 3 *Dudus*, of which 49½ are equal to 1 *Rupee*. In so poor a country, these wages are very high. A male slave gets daily 2 *Pucka Seers* of rough rice, with annually one blanket, one handkerchief, a piece of cotton cloth, and some oil, tamarinds, and capsicum. He gets no money, except at marriages; but these cost 16 *Pagodas*, or 6*l*. 8*s*. 11½*d*., for the woman must be purchased. She, and all her children, of course become the property of her husband's master. The woman slave gets daily 1¾ *Seer* of rough rice, a blanket, and annually a piece of cotton cloth, and a jacket. Children and old people get some ready dressed victuals at the house of the master, and are also allowed some clothing. The men work from sun-rise till sun-set, and at noon are allowed one *Hindu* hour, or about twenty-four minutes, for dinner. The women are allowed till about eight o'clock in the morning to prepare the dinner, which they then carry to the fields, and continue to work there with the men until sun-set.

Sandal-wood.

In the forests here, any person may cut whatever trees he pleases, except sandal-wood, and such as grow in forests producing pepper. The sandal trees are numbered, and put in charge of the head-man of the village. The custom of this district (*Taluc*) is, once in twelve years to cut the sandal. Three years ago a man purchased all that was fit for cutting, and procured about 100 *Maunds* of 40 *Seers* each, or about 21½ hundred-weight.

Commerce. Exports.

Few or no merchants reside in *Soonda*. Those from below the *Ghats* come, and purchase a little pepper; but by far the greatest part of this article, and all the *Betel-nut* and cardamoms, are brought

1801. March 15. up by the *Banijigas*, who come from *Hubuli, Drawara, Hameri*, or *Haveli*, and *Umanabady* in the *Marattah* dominions. They come here in the hot and dry season, between March and June, and, going round the houses of the cultivators, give cash for the produce of the gardens. The common price of pepper is 18 *Ikeri Pagodas*, or 72 *Rupees*, for the *Nija* of 12 *Maunds*, each weighing 72 *Seers* of 24 *Dudus*. This is at the rate of $3\frac{321}{1000}$ pence a pound, or at about 82½ *Rupees* for the *Candy* of 600 lb., which is used by the Company in *Malabar*. The cultivation of gardens being evidently more expensive here than in *Malabar*, we may, from the price given at this place, judge of the practicability of the Company's taking at a low rate all the pepper of that country, and, provided they removed the land-tax, of giving a sufficient encouragement for its cultivation. The common price of red *Betel-nut* here is one *Pagoda* for the *Maund*, or $2\frac{214}{1000}$ pence a pound. The cardamoms sell for 7 *Pagodas* the *Maund* of 40 *Seers*; so that a pound costs almost 2*s*. 4*d*.

Imports. The *Marattah* merchants bring almost the whole cloth, and a great part of the grain, that is used in the country. Some they exchange with the cultivators; but the greater part is sold for ready money to shopkeepers, who again retail these articles to the people of the country. The iron used in the neighbourhood comes from *Chandra-gupty*, and other places in the dominions of *Mysore*. Their salt comes from *Canara*, and a vast quantity passes this way to the *Marattah* territory.

Betel-nut. The *Marattah* merchants, who are just now here, say, that the *Betel-nut* of this place is greatly inferior to that of *Sira*; and the neighbouring countries; which is in direct opposition to the information of the people of *Bangalore*. The taste of the people in the two countries may be different; as, for instance, the female *Betel-leaf* is here preferred, while in some other countries the male is in greater request. There is no reason to doubt the accuracy of the price current given me at *Bangalore*. The *Marattah* merchants say, that they purchase all that they can get at *Sira*; but, that being totally inadequate to supply the demand, they must take whatever they can get. They say, that none grown in the *Marattah* territories, and from hence it is carried to the most remote parts of their dominion.

Cardamoms. The cardamoms that grow here are of a nferior quality to what they get at *Sringa-giri*, that is, to the produce of *Coorg*.

Pepper. The garden pepper of *Soonda* and of *Nagara* is of equal value, and is better than that which grows spontaneously, there *Pagodas* a *Candy*, that is, in the proportion of ten to nine. They say also, that merchants and commerce meetwith every protection and encouragement in the *Marattah* dominions. Indeed, among the *Hindus*, even in the most rapacious governments, this class of people is seldom molested.

Strata of Jaydi Munnu In low moist vallies here, a kind of white clay, mixed with small

bits of quartz, is very commonly found under the soil of rice-grounds. Its *strata* are often several cubits in thickness, and, where it comes to the surface, render the ground very sterile. It is called *Jaydi Munnu*, and is used to white-wash the houses of the natives. It is diffused in water to separate the sand and stones, and is then mixed with a little *Chunam*, that is to say, the ashes of *Muddi* bark (*Chuncoa Muddia*, Buch. MSS.); for in this vicinity there is no line. 1801. March 15.

The *Panchanga*, or astrologer of this place, gives me the following account of the weather. In the month preceding, and the four months following, the summer solstice, the winds are westerly, and very strong, with excessive rains; so that during these five months it is rarely ever fair for an hour. In the five following months, that is, two months before and three months after the winter solstice, the winds are easterly, and of moderate force. The weather is in general fair; but during the first month there are some showers, and during the two next there are every morning heavy dews, and thick fogs. In the two months following the vernal equinox, the winds are variable, but come mostly from the south. At first they are moderate, but they increase in strength toward the end of this period, and bring on the commencement of the rainy season. At present, toward the end of the second period, the nights are rather cool, with very heavy fogs in the morning. The days are clear, and very hot. Weather.

The two most unhealthy seasons are, the two first months of the rainy season, and the four months of cool weather. At all times, however, the country is extremely unhealthy for people not inured from birth to its dangerous air, and my servants are now suffering considerably from its baneful influence. Unhealthy air.

16th *March*.—Having been employed all the 15th in taking the foregoing account, I to-day went five cosses to *Banawasi*. A great deal of the country through which I passed has been formerly cleared; and the greater part, although now waste, has not yet been overgrown with trees. The woods, being young, do not in general contain tall trees; but I passed through a stately forest, in which the pepper-vine grows spontaneously. In this there was some *Teak*. The greater part of the country is not too steep for the plough; but in may places the *Laterite* rises to the surface. Where that is not the case, the soil is apparently good. *Banawasi*, in *Hyder's* government, contained 500 houses, which are now reduced more than one half. Its walls are ruinous, and, although it has been a place of great celebrity, do not appear to have been ever of great extent. It is now the residence of a *Tahsildar*. The *Varadá* river, after having come from *Ikeri*, passes on the east side of the town, and falls into the *Tunga-bhadra*. At present it is very small, and muddy, with little current; but in the rainy season it is no where fordable, and might be applied to the purposes of commerce. It is only navigated, however, by the baskets covered with leather, which serve for ferry-boats. March 16. Appearance of the country.

1801. March 16. *Madu Ling*, a Hindu antiquary.

I remained at *Banawasi* two days, having met with a *Brahman* very curious in antiquities, who was named *Madu Linga Rutta*, and who was priest (*Pujári*) in the temple called *Madugeswara*, to the sanctity of which the celebrity of *Banawasi* is attributed by *Madu Linga*. It is dedicated to *Maducanatá*, one of the names of *Iswara*, or *Maha Deva*, of whom my antiquary is a most devout worshipper. This temple had formerly very large endowments; and, although a very mean building, is still in good repair, and much frequented. Its priest was to me the most interesting object about the place. Although a person of the most austere and mortified life, and who employs much time in the ceremonies of devotion, yet he had considerable curiosity, and had been at great pains in studying and copying the ancient inscriptions, both here, and at some places of celebrity in the neighbourhood.

Banwási.

Banawasi, he says, in the first *Yugam* was called *Coumodi*; in the *Traytaia-yugam* it was called *Jainti*, or success; in the *Duapar-yugam* its name was changed to *Beindivi*; and in this age it is called *Vanavasi* in the *Sanskrit*, and *Banawasi* in the vulgar language, as being situated in a forest. At the very commencement of this age, it was some time the residence of *Dharma*, the youngest of the five sons of *Pandu*; and here several princes descended from *Trenetra Cadumba* held their court.

Inscriptions.

Madu Linga gave me copies of the following inscriptions, which have been delivered to the Bengal government.

The most ancient by far, and, unless there be some mistake in the matter, which indeed is almost certain, the most ancient inscription any where existing, is at the temple *Madugeswara*, and contains a grant of land to the god *Maducanata*, by *Simhunna Bupa* of *Yudishtara's* family, dated in the year of the era of *Yudishtara* 168. As the Christian era, according to the usual reckoning of the *Bráhmans*, commences in the 3102 year of *Yudishtara*, this inscription was made 4735 years ago.

Another very ancient inscription, but following the other at a great interval, is also at the temple of *Maducanata*. It is dated in the year *Jeya* of the era of *Vicrama* 96, in the reign of *Vicrama Dittya*. This answers to the 39th year of our Lord.

The next most ancient inscription, of which he gave me a copy, is at *Balagami*, a place south-east from hence in the *Mysore* territory. *Yudishtara*, or *Dharma Raya*, dwelt at it one year; and afterwards, during the reign of *Vira Belalla*, it was for some time the capital of *Karnata*. The ruins are said to contain an immense number of inscriptions. Two of these are dated in the reign of *Yudishtara*; and the others are all in the reigns of *Jain* princes, who, early in this *Yugam*, according to *Madu Linga*, expelled the followers of the *Vedas*, and till the time of *Sankara*, and *Ram' Anuja*, continued to be the governing power. The inscription of which I am now treating contains a grant of lands to the goddess *Renuca*,

mother of *Parasu Rama*. Her temple is, however, situated at *Chandra-gupti*. The date is in the year of *Sal.* 90, or *A. D.* 16⅞, in the reign of *Trenetra Cadumba*. I have many doubts concerning the antiquity of this inscription. It is said to mention, that, before the time of this *Trenetra Cadumba*, there had been fourteen *Cadumba Rayas*, and twenty-one of the family of the *Barbaraha*; and that after him there would be seven *Cadumba Rajas*, and *Vira Boga Vassundara*, a *Raja* who, according to the *Bráhmans*, has not yet appeared, but who is soon to come, and who, after having expelled all *Melenchas* and other infidels, is to restore the true worship in all parts of *Bharata-khanda*. When I stated, that the inscription must have been written after the last of the twenty-one *Jeantri Cadumba Rajas* mentioned by *Ramuppa*, as their exact number is specified in the writing, my doubts by no means discomposed the *Hindu* antiquary; he said that this matter could have easily been ascertained by prophecy; and, in order to remove my doubts, showed me a list of monarchs extracted from the eighteen *Puranas*, in which the Mussulman kings of *Delhi* were mentioned. Any reply to this could only have given offence; but the circumstance shows, that either these books usually attributed to *Vyasa* are of recent fabrication, or have suffered gross interpolations.

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Madu Linga was, however, so far from looking upon the power of foretelling future events as a proof of supernatural authority derived from divine favour, that he gave me a copy of an inscription on stone, which also came from *Balagamy*, and which he says is prophetical, and yet acknowledges that it was composed by a *Jain Guru*, who by intense study had acquired the art of prophecy. A copy of what is said to be the prophetical part of this inscription I delivered with the others; the remainder *Madu Linga* did not think worth copying. The prophecy he applies to the success of the British arms in India; and says that before the year of *Sal.* 1900, the English are to possess the whole country from the snowy mountains, to *Rameswaram*. The author of the inscription in question is said to have been *Muru Jamadeya*, *Guru* to *Maha Sholia*, or *Sholun Raja*, a *Jain* prince, who was sovereign king of the five great divisions of the world. He lived since the time of *Salivahanam*; and my antiquary relates many extraordinary things of this infidel prince, and of his unbelieving *Guru*. I am at a great loss to account for this circumstance, as *Madu Linga* is apparently a zealous worshipper of *Siva*. I can only account for it by supposing, that he is inwardly a *Jain*, which does not prevent him from worshipping the *Linga* as a representation of a *Devata*. However that may be, he gravely relates, that *Sholia Raja* permitted none of his subjects to die till they were a hundred years old; and also, that his *Guru* one day, about 3 o'clock in the afternoon, told the sun to stop, and the luminary immediately obeyed. After three hours the *Guru* allowed it to set, which it accordingly did at the usual time by a sudden movement to the west. The inscription in question was composed by

1801. March 16.

Muru Jamadeya, that, when the prophecies in it came to be fulfilled, all future ages might have evident proof of his learning.

Another inscription is engraven on a stone at the temple of *Talaléswara* in *Hanagul,* a place in the *Savanuru* district *(Taluc),* which is probably the *Shanoor* of Major Rennell. The date is involved in the conceit of a couplet, but was interpreted to be *Sal.* 1130, being the year *Jeya.* The reigning prince is *Cadumba Raya,* and must have been a descendant of the *Jeantri Cadumba* monarchs, who even then retained a portion of their dominions.

The next inscription is at a place called *Cupatura,* which lies east from *Banawási.* It is dated *Anunda Sal.* 1297 (*A. D.* 137$\frac{4}{5}$), in the reign of *Vira Buca Raya* of *Hasinawali,* which is the *Sanskrit* name of *Anagundi,* a city on the bank of the *Tunga-bhadra,* opposite to *Vijaya-nagara.*

The next inscription is engraven on a stone at a *Jain* temple (*Busty*) in the same place, *Cupatura.* It is dated in Sal. 1337, which, as I before mentioned, is probably an error of the copyist for 1437; as it is in the reign of *Achuta Raya, Narasingha Raya,* and *Krishna Raya.*

It would appear, that until about this period the *Jain* in these parts continued numerous. Among other proofs, I may mention that a valuation of all the country between *Nagara* and *Vereda,* both included, and said to have been made by the orders of *Krishna Rayaru,* appears to have been conducted by a *Jain* officer, *Gopa Gauda.* This valuation is engraved on stone at *Balagami,* or *Balagavi;* and a copy of it, which I procured from *Madu Linga,* accompanies the other inscriptions.

The next inscription is in a temple at *Banawasi,* and is dated *Paradavi, Sal.* 1474, in the reign of *Vencatadri Deva Maha Raya.*

The last inscription also is engraven on a stone at *Banawasi,* and dated *Vilumbi* of *Sal.* 1501, in the reign of *Imudy Arasuppa Nayaka* of *Sudha,* which confirms the chronology of the *Guru* of that family in the account which he gave me while I was at their capital.

State of agriculture in the open part of *Soonda.*

Having assembled the cultivators in presence of the officers of government, they gave me the following account of the state of agriculture; which may be considered as applicable to the eastern and more open parts of *Soonda.*

Every village has a different measure for grain: that in use here is as follows:

Grain Measures.

One *Candaca* contains 20 *Bullas*; 1 *Bulla* 4 *Seers.* The *Seer,* when heaped as usual, contains 76$\frac{1}{2}$ cubical inches. The *Candaca,* therefore, is equal to 2$\frac{346}{1000}$ bushels. By this *Candaca,* the farmers estimate the seed and produce; but they sell rough rice by another, the *Bulla* of which is equal to 80 *Seers,* or which contains 56$\frac{9}{10}$ bushels. The value of this at present is 6 *Pagodas,* which is at the rate of 10$\frac{12}{100}$ pence a bushel. Rice again, when freed from the husk, is sold by a *Candaca* whose *Bulla* contains 32 *Seers,* or which is equal to 22$\frac{1}{4}$ bushels. This at present sells for 6$\frac{1}{4}$ *Pagodas,* or 25

Rupees; which is at the rate of 2*s.* 2½*d.* the bushel, and is said to be higher than the price at *Seringaputam*. The difference of price shows the enormous expense which attends the operation of removing the husks, owing to the ignorance of mechanism among the natives; for only one half of rough rice consists of husk. 1801. March 16.

Here, and all toward the east side of *Soonda Rayada*, the great object of cultivation is rice; as toward the west the farmers are chiefly occupied with plantations. I measured two fields, in order, if possible, to ascertain the rate of seed and produce, but without getting any thing satisfactory. By measuring a great extent an average may be struck, as has been done by Mr. Ravenshaw*; but it will be found, that some fields are alleged by the cultivators to require one half less seed than others of equal extent. Great allowances must be made, in a point even of such importance, to the ignorance of the farmers; but still I do not suppose them to be so grossly inattentive, as to make such a difference in the seed actually sown. I rather suppose, that what they call a *Candaca's* sowing has nothing to do with the real quantity of seed, which is concealed with a view of lowering their burthens. One of the fields which I measured contained 72,698 square feet for the nominal *Candaca*, which is at the rate of 1 $\frac{705}{1000}$ bushel an acre. The other field was at the rate of 48,749 square feet a *Candaca*, or at 2½ bushels an acre. These fields were contiguous, and the difference appeared to me to have arisen from two plots of *Ragy* ground having been stolen into the first, which in the revenue accompts was still kept at its original rate of sowing, but actually required more seed. As a foundation for calculation, I therefore prefer the last measured field.

The rains are not so heavy as to the westward; but in ordinary seasons and a moist soil, are sufficient to bring to maturity a crop of rice that requires six months to ripen. Where the soil is very absorbent, small tanks are formed, to keep a supply for a few days that may occasionally happen to be without rain. A few of the highest fields are cultivated with a kind of rice that ripens in three months; but the natives here consider as totally useless much land that might be easily formed into terraces, like the *Mackey* land of *Kankana*, and of which the soil is apparently good. The rice ground never gives two crops of rice in one year, although, by means of tanks, a constant succession of crops might be obtained from the lower parts of the vallies. This kind of land is divided into two sorts; the *Soru*, or low fields; and the *Bisu*, or higher ones. Both are cultivated in the same way, and the only difference is in the quantity of produce.

The six months rices are cultivated on the low fields (*Soru*); and on the best of the higher land (*Bisu*); and are the following:

Doda Honasu.
Sana Honasu.
Mulary.
Cari Chinna Calli.

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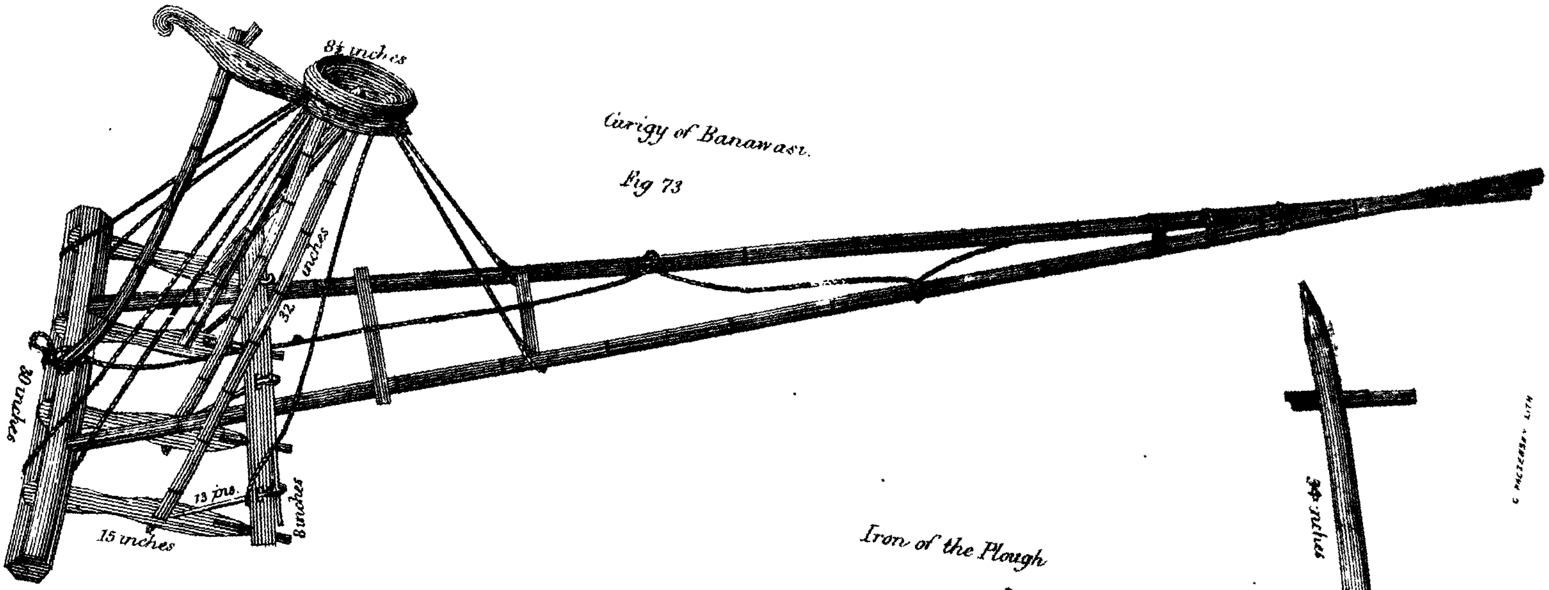
Sali Butta.
Mota Hulliga.
Sidu ali.
Asidi Butta.
Chinta Punny. All these are large grained.

Sana Butta, a small grain, and rather more valuable than the others; but it is found to answer on very few soils. Experience shows, that certain fields agree best with certain kinds of rice, and each is of course sown with the kind only that gives most return. The natives have no rule to ascertain this *a priori*; and when a new field is brought into cultivation, they must find it out by experience. The manner of cultivating these kinds of rice is as follows. Immediately after harvest, the field is ploughed lengthwise and across. (The plough of this place is delineated in Plate XXVI. Fig. 71). The clods are then broken by drawing over the field an instrument named *Coradu,* which is yoked to a pair of oxen, and is represented in Plate XXIX. Fig. 72. The field is then allowed to rest exposed to the air until the month preceding the summer solstice, or until the rains commence, when its soil is loosened by the hoe drawn by oxen and called *Heg Cuntay* (Plate XXVIII. Fig. 75); and the seed is sown without preparation by means of a *Curigy,* or drill (Plate XXVI. Fig. 73). The four bills of this implement are secured by bolts of iron passing through a beam, to which the yoke-rope is fastened. The perforations, for the seed to pass through from the cup, are an inch in diameter; so that the seed must fall very thick. After having been sown, the field is manured with cow-dung, and smoothed with the *Coradu.* The water is allowed to run off as it falls. Eight days after having been sown, the field is hoed with the *Cuntay,* which kills the weeds without injuring the seed that is then just beginning to sprout. Eight days afterwards the young rice is four inches high, and the field is hoed between the drills with a hoe drawn by oxen, and called *Harty,* or *Nir Cuntay,* which is delineated in Plate XXVIII. Fig. 76. This kills the grass, and throws the earth toward the drills. After this, a bunch of prickly *Bamboos* is yoked to a pair of oxen, and the driver stands on a plank above the thorns, to give them weight. This is drawn over the field, and removes the grass without injuring the corn. When this is six inches high, if there be rain, the water is confined, and the field is kept inundated; but, if the weather should be dry, the field must again be hoed with the *Harty Cuntay,* and harrowed with the bunch of *Bamboos.* Whenever the field begins to be inundated, it must be again hoed with the same implement, and smoothed with the *Coradu,* which acts in some measure like a rolling-stone. At the end of the third month, the field is drained, and the weeds are removed. The water is again confined; but in fifteen days, if more weeds spring up, the field must be again drained and cleaned: this, however, is not always necessary. In the fifth month, a grass, much resembling rice, comes up, and must be carefully removed with a



Carigy of Banawasi.

Fig 73

Iron of the Plough

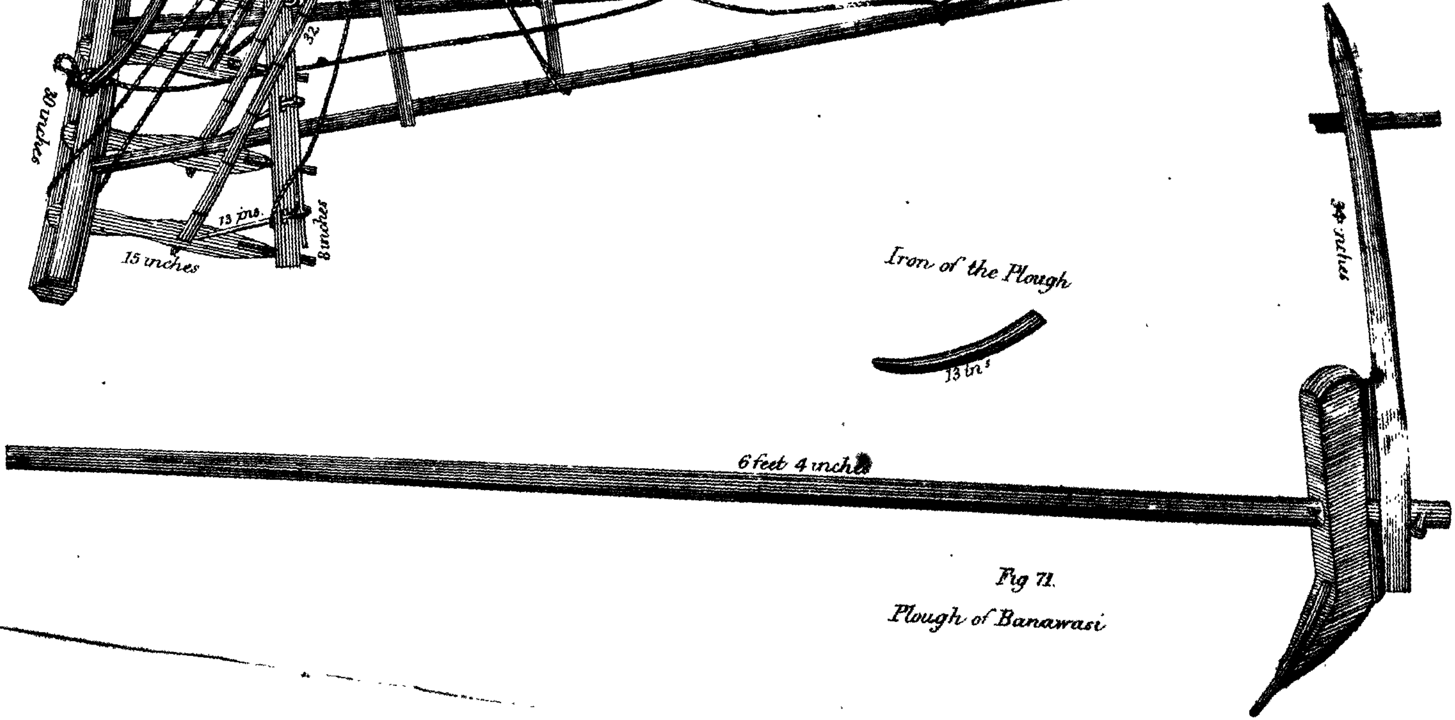


Fig 71.

Plough of Banawasi

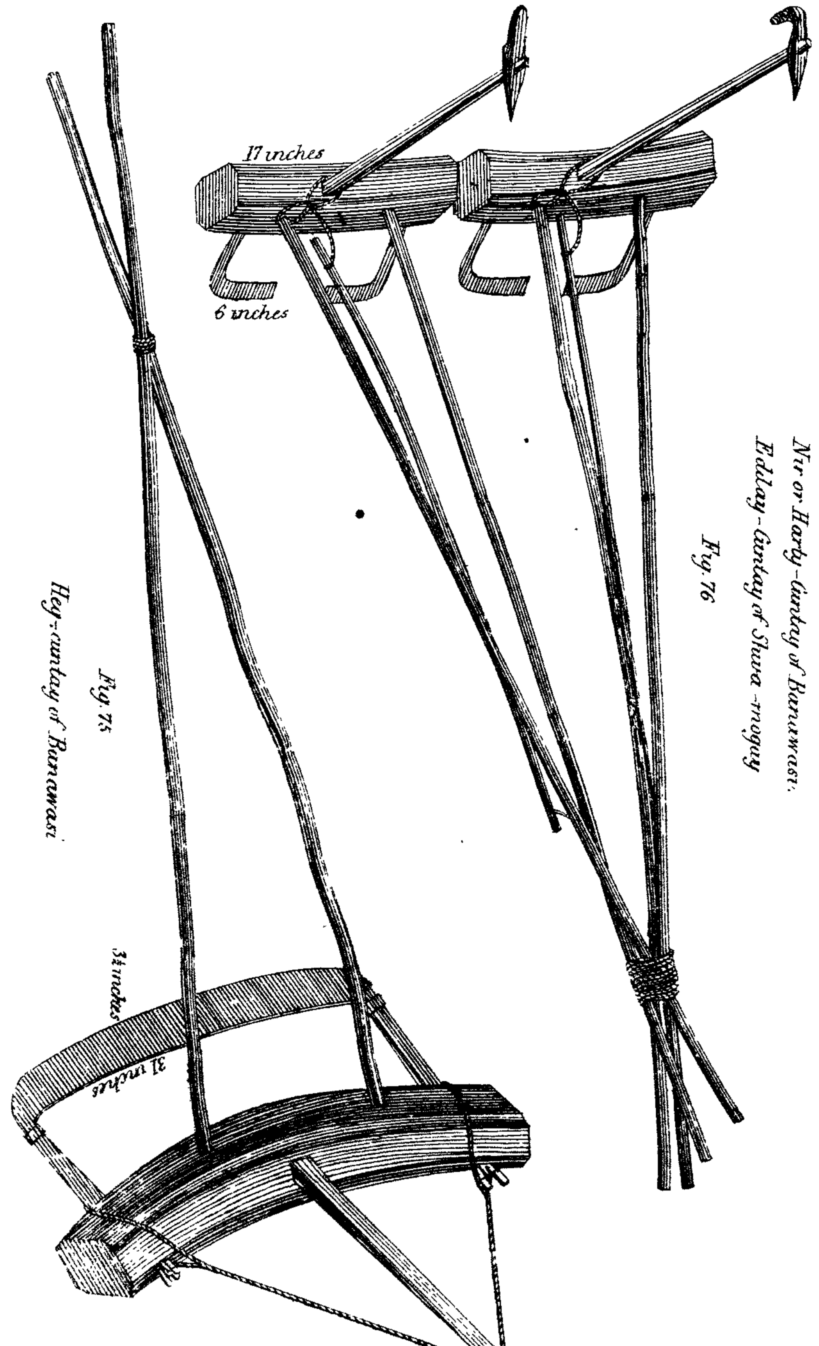
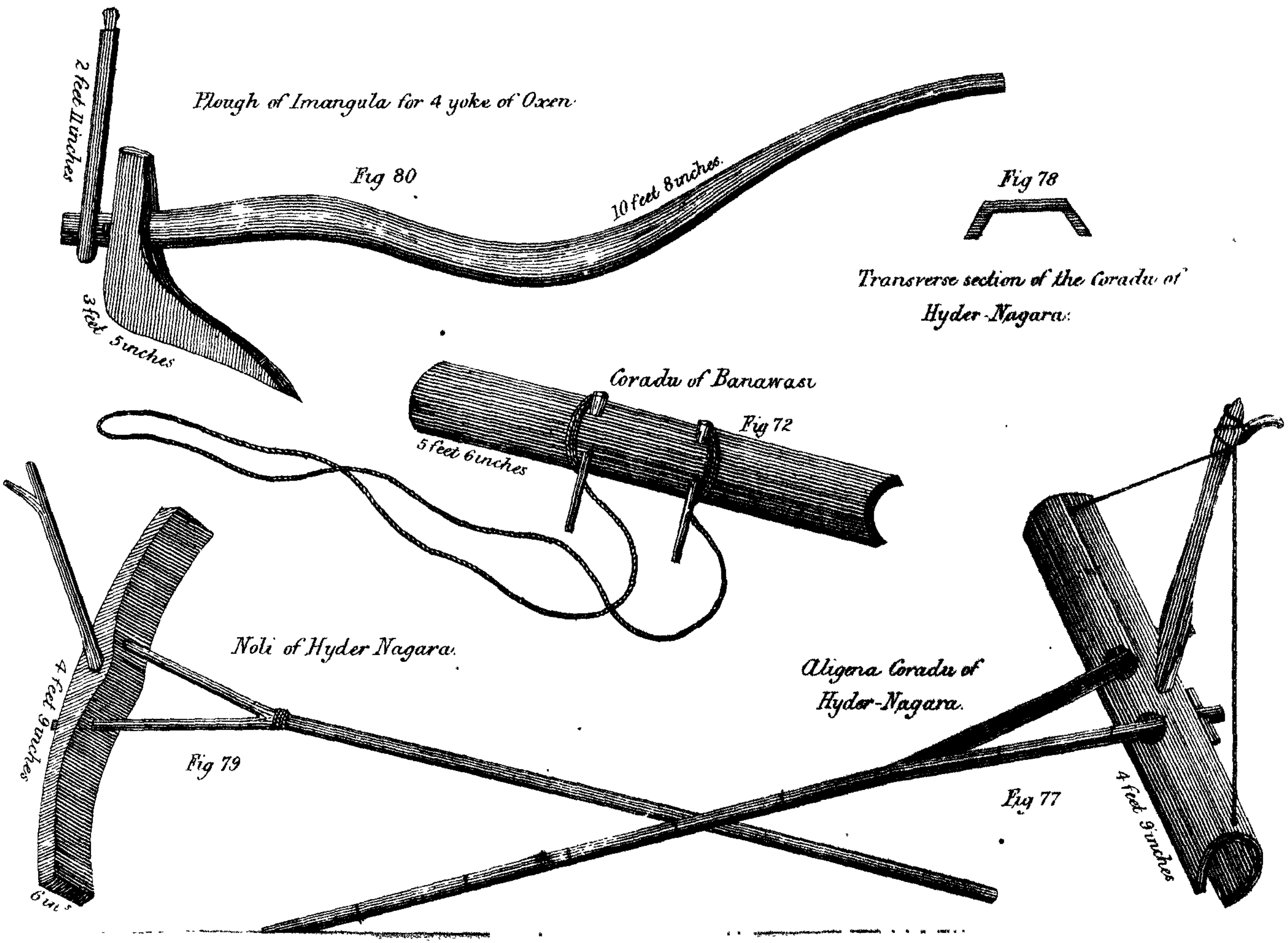


Fig. 76
Nir or Harty-cuntay of Banawasi.
Edday-cuntay of Shiva-moguy

Fig. 75
Hey-cuntay of Banawasi

G. PACZENSKY LITH


Plough of Imangula for 4 yoke of Oxen.
2 feet 11 inches
Fig 80
10 feet 8 inches.
3 feet 5 inches
Fig 78
Transverse section of the Coradu of Hyder-Nagara.
Coradu of Banawasi
Fig 72
5 feet 6 inches
Noli of Hyder Nagara.
4 feet 9 inches
Fig 79
6 in s
Aligena Coradu of Hyder-Nagara.
Fig 77
4 feet 9 inches

knife. In the seventh month the crop is reaped, and the straw is cut close by the ground. For three days it is allowed to remain on the field in handfuls. It is then thrown into loose heaps, and afterwards tied up in small sheaves, which are stacked on some airy place; and in the course of three months it is trodden out by the feet of oxen. All this time there is seldom any rain; and even when any comes, it seldom injures the reaped corn. The grain is always preserved in the husk, and beaten out as wanted for use. Any omission in these steps of cultivation produces a great diminution of the produce. Ten seeds, the farmers say, is a good crop on low land, and 7 seeds on the higher fields called *Bisu*. At this rate, an acre of the former produces $25\frac{1}{2}$ bushels, worth 1*l.* 1*s.* $7\frac{1}{4}$*d.*; and of the latter, $17\frac{8}{10}$ bushels, worth nearly 15*s.* $1\frac{1}{2}$*d.* The officers of revenue say, that the produce is about a fifth part more. 1801. March 16.

Much reliance cannot, however, be placed upon what either party say; as all the officers have either lands of their own, or have relations who are deeply interested.

The kind of rice that is sown on the more elevated parts of the (*Bisu*) high land, and which ripens in three months, is called *Varaugully*. The grain is of the same value with the others. Its cultivation is similar, only it is sown eight days later, and all the steps of the operation must succeed each other more rapidly. The produce is from five to seven seeds.

Sugar-cane.

Sugar-cane is raised on the rice-ground, but in very small quantities, and the whole is made into *Jagory*. The ground fit for it must have a *Tank* containing water enough to irrigate the field twice after it has been planted, and once before the crop is reaped. The kind used is called the *Hulocabo*, or straw cane; and it is the same with the *Maracabo* of *Bangalore*. It is planted in the second month after the winter solstice, and is cut within the year. 1400 canes give a *Maund* of *Jagory*, and a *Candaca* of land will produce 21,000 canes, or 15 *Maunds* of 44 *Seers*, each weighing 24 elephant *Dubs*. The produce of an acre, by this account, is only about 357 lb. of *Jagory*. Some people allow the cane to grow up again from the roots, and thus get what in *Jamaica* is called a crop of *Raloons*. This produces only half of the above mentioned quantity of *Jagory*. Between every two crops of sugar must intervene two of rice, which are as productive as usual.

At *Banawasi*, no second crop of any kind is taken from the rice ground.

Sterility of the higher lands.

In the eastern parts of *Soonda*, a very small quantity of the grains called dry is cultivated, but none toward the west. This cultivation was formerly much more extensive; but the rice ground being most profitable, and the whole even of that not being cultivated, owing to a want of people and stock, the dry-field is of course much neglected. The fields used for dry grains are not levelled, I have already said, that all over the *Rayada*, even in its western parts, there is a great extent of land apparently fit for the purpose; but the natives allege,

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that they find by experience, that the grain will thrive only in particular spots. Experience is their sole guide; they have no rule by which they can at sight discriminate the barren from the fertile land. I am inclined to think, that this is one of the absurd notions prevalent among all unskilful farmers; and that in a well watered country, such as this is, wherever the soil is not rocky, or the land too sleep, it will be found productive.

Cultivation of dry field fit for *Ragy*.

A certain field having been found by experience fit for the cultivation of *Ragy*, the following succession of crops in three years is taken from it; *Huts' Ellu*, *Ragy*, fallow.

Huts' Ellu, or the *Verbesina sativa*, Roxb.

A month before or after midsummer, according as there is rain, the ground is ploughed three times, and smoothed twice with the *Coradu* before mentioned. The month following the autumnal equinox, the seed of the *Huts' Ellu* is sown broad-cast, ploughed in, and the field is then smoothed with the same implement. The seed is sown twice as thick as that of *Ragy*. It ripens in two months, and produces five seeds.

Ragy, or the *Cynosurus corocanus*.

Next year, in the month preceding the summer solstice, the field is ploughed with the first rain. Eight days afterwards it gets a second ploughing. On or about the 16th day it is smoothed with the same implement, and two or three days afterwards it is ploughed a third time. After another interval of two or three days, furrows, at a span's distance, are drawn throughout the field. The seed of the *Ragy* is then mixed with some cow-dung; and at a span's distance from each other, small lumps of the mass, containing from eight to twenty seeds, are dropt into the furrows. The field is then smoothed with the *Coradu* before mentioned. In about fifteen days afterwards, when the plants are four or five inches high, the field is hoed with the *Cuntay*, and afterwards, harrowed with the bunch of pickly *Bamboos*. About fifteen days afterwards, the intervals between the drills are ploughed, and the field is again smoothed with the *Coradu*. In five months *Ragy* comes to maturity, and produces 20 fold. In this, the greatest imperfection, besides the usual want of proper implements is the neglect of manure. I measured a field, said to sow one *Colaga* and a half of *Ragy*, and found it to contain 33,516 square feet. An acre at this rate sows about $5\frac{1}{2}$ bushels of *Ragy*. Its produce of *Huts' Ellu* is half that of *Ragy*, and the seed is double.

Cultivation of dry field fit for *Horse-gram*.

By experience, other fields are found fit for the cultivation of *Huruli*, or *Horse-gram*; and *Harulu*, or the *Ricinus*. These are cultivated in a similar rotation of *Huruli*, *Harulu*, and fallow. Sometimes both crops consist of the *Harulu*.

Harulu, or *Ricinus plma christi*.

For *Harulu*, the field is ploughed four times in the month preceding, and the two months following the summer solstice. At the same time it is twice smoothed with the *Coradu* above mentioned. In the last of these months furrows are drawn throughout the field at one cubit's distance, and crossing each other at right angles. In each intersection are placed two seeds, and the whole is again smoothed with the same implement. On the tenth day the plants come up, on

the fifteenth the intervals between the rows must be hoed with the *Cuntay*. The plant does not rise above two cubits high, and produces four seeds. The crop season continues during the two months preceding the winter solstice. The oil is extracted entirely by boiling, and four *Seers* of seed give one of oil, but with the seed the measure is heaped. The oil is used for medicine and for the lamp. After the *Harulu* comes a fallow. 1801. March 16.

Then in the month preceding the summer solstice the field is ploughed twice, and smoothed with the *Coradu*. In the month preceding the autumnal equinox, the field is again ploughed, sown broad-cast, and smoothed with the same implement. In three months the grain ripens, and three seeds are reckoned a good crop. *Huruli, Horse-gram, or Dolichos biflorus.*

A field said to sow 3 *Seers* of *Huruli*, and $3\frac{1}{2}$ of *Harulu*, measured 24,780 square feet. The seed required for an acre will be of *Huruli* $\frac{23}{100}$ parts of a bushel, and the produce $\frac{69}{100}$ parts of a bushel, or deducting seed $\frac{46}{100}$. *Horse-gram* sells here at 15 *Seers* for the *Rupee*, or for 3*s*. $9\frac{3}{4}$*d*. a bushel. The value of the produce of an acre, deducting the seed, is therefore about 1*s*. $9\frac{1}{2}$*d*. The seed of *Harulu* required for an acre will be $\frac{269}{1000}$ parts of a bushel, producing $\frac{807}{1000}$ parts of a bushel. Small value of this ground.

The cattle of *Soonda* are of a rather larger breed than those of *Kankana* or *Haiga*; but they are greatly inferior to those of the country to the eastward, whence many are brought for the plough. Buffaloes are here more used than oxen. There are in *Soonda* no sheep, goats, swine, nor asses, and very few horses. In the dry season, that is, from the month preceding the shortest day, until the summer solstice, the cattle are fed on straw, and that of *Ragy* is preferred to that of rice. In the two months following the summer solstice, while there is much labour going forward, the cattle are allowed hay made of the soft grass which grows on the little banks separating the rice-fields: that of the hills is considered as totally useless. For the milch cattle the hay is boiled, and mixed with the bran of rice. During the three remaining months the cattle are allowed to pasture. Cattle.

In the dry weather, the cattle are folded on the fields; in the rainy season they are taken within doors, and as a manure for the fields their dung is collected, and mixed with ashes, and the soil of the farmer's house. Those who have no gardens allow no litter: but the *Haiga Bráhmans*, for the use of their gardens, litter the cattle at one season with fresh leaves, and at another with dry grass. The two manures thus formed are kept separate, and applied to different purposes. A want of attention to manure is a striking feature in the grain farmers of *Soonda*. Manure

All the arable land in *Soonda* is considered as the property of the government; but the value of every estate is fixed; and so long as a tenant pays his rent, it is not customary to turn either him or his heirs out of their possessions. It is true, that he cannot transfer his right to occupy the farm by sale, but he may transfer it by (*Votay*) mortgage to any person (*Aduvacara*) who will advance mo- Tenures

1801. March 16. ney. There are two kinds of mortgage. In the one the *Aduvacara* advances nearly the value of the property, cultivates it, and pays the taxes. This loan is made for a stipulated time; and, when that expires, the money must be repaid. If the mortgagee has neglected the weeding, arbitrators will fix a certain reduction to be made from the debt, on account of the injury which his neglect has done to the property. He can claim nothing on the score of improvement; indeed, a field, once regularly brought into cultivation with rice, is supposed to be incapable of farther amelioration. The other mortgage is, where the tenant borrows money on his land, and gives a bond, stating that he has borrowed so much money on such and such lands at such an interest, generally from 1½ to 2 *per cent. per mensem*, and that he will pay the interest monthly, and at such a period will repay the capital. The mortgager in this case continues to cultivate the lands and to pay the taxes. If he cannot discharge the debt when it becomes due, the mortgagee taxes the land, pays the revenue, and keeps the profits for the interest; but it is always redeemable by the original tenant, should his circumstances ever enable him to repay the debt.

Land-tax. The revenue is paid entirely in money, at from one to four *Rupees* for the *Canduca*, according to the old valuation; but in some places the quantity sown is double of what is rated in the revenue accompts. The reason assigned for this is, that such lands are poor. The dry-field pays no revenue whatever; but a certain quantity is annexed to each estate of rice-land, as an encouragement for the farmer. Of the two fields that I measured, one paid at the rate of 2 *Rupees*, and the other at the rate of $2,\frac{84}{100}$ *Rupees* an acre; the first equal to 4*s*. 0¼*d*., and the last to 5*s*. 8½*d*. The gross produce I have already stated, on the report of the farmers, to be worth from 15*s*. to 1*l*. 1*s*. an acre. This calculation, and the custom of lending money on mortgage, are a clear proof that the tax is moderate, and that enough of the property remains with the actual cultivator, not only as a reward for his trouble, but to render his land a valuable property.

Size of farms. A farmer who has five ploughs is esteemed a rich man. With these he must keep six men and six women, and ten labouring cattle; and at seed-time and harvest he must hire additional labourers. Farmers, who are not *Bráhmans*, unless their farms be large, work the whole with their own families; but rich men must hire servants, or keep slaves; and, to hold their plough, *Bráhmans* must always have people of the low castes. This is a kind of work that even a *Haiga Bráhman* will not perform.

Cultivation of the slaves.

A man slave gets daily 2 *Seers* of rough rice, or yearly about 26 bushels worth	£1	2	0½
A handkerchief, a blanket, and piece of cloth worth 2 *Rupees*...	0	4	0¼
A *Pagoda* in money	0	8	0¾
Six *Candacas* of rough rice at harvest.	0	14	6
	2	8	7½

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The women get one piece of cloth annually, and a meal of ready dressed victuals on the days that they work, which may amount annually to ... 0 8 1

Wages of free men.

Hired men get four *Seers* of rough rice a day, worth less than three half-pence.

Quantity of land cultivated by one plough.

The farmers say, that, with a stock of six ploughs, a man can cultivate thirteen *Candacas* of land. The officers of government say, that three *Candacas* for a plough is the common reckoning; but even this cannot be received, unless we suppose the ground more productive than the farmers confess. For, supposing all the eighteen *Candacas* to be of a good quality, and to produce ten seeds, the whole value of the crop would be 21*l.* 15*s.* 2*d.*; and the support of six men and women slaves, not to mention seed, rent, cattle, &c. &c. would come to 16*l.* 19*s.* 9*d.* The people here are far from taking any extraordinary trouble with their lands; and, I should suppose, cultivate with a similar stock as much as is done in *Bengal*, where about seven acres may be considered as the usual rate of work for one plough. We may, therefore, allow between thirty and forty *Candacas* at least for six ploughs, or double that which the officers of revenue stated.

Mr. Read's account of his part of his district.

Being now about to enter the territories of the *Mysore Raja*, I shall conclude what I have to say concerning *Soonda*, with extracts from Mr. Read's answers to my queries, which have been collected with great precision and ability from the reports of the native officers.

Soil.

Mr. Read states the proportion of sterile and productive lands, in the four districts (*Talucs*) of *Soonda*, in the following proportions, supposing each to be divided into a hundred parts.

Talucs.	Land capable of cultivation.	Sterile lands.
Supa	12	88
Soonda, or *Sudha* ...	16	84
Banawasi	20	80
Billighy.	20	80.

Produce of waste lands.

The produce of the waste lands Mr. Read states as follows. The *Maund* weighs $24\frac{84}{100}$ lb. and is divided into 40 *Seers*.

Taluc.	*Sandal* wood trees. Total.	*Teak* trees cut annually.	*Sissa* trees cut annually.	Annual produce of honey.	Annual produce of wax.	Annual produce of wild cinnamon.	Annual produce of *Cabob China.*	Annual produce of wild pepper.
				Maunds	*Maunds*	*Maunds*	*Maunds*	*Maunds*
Supa ...	2097	394495	59770	33 23	49 6	15 30	5 10	—
Soonda, or *Sudha* ...	1718	1639	1715	8 7	29 28¼	2 0	1 0	—
Banawasi ...	3812	29	3069	11 24	3 13	—	—	—
Billighy ...	5266	—	34	—	—	—	43 0	34 8
Total..	12893	396113	64588	53 14	72 7½	17 30	49 10	34 8

Wild pepper.

I know that wild pepper is collected in the *Soonda Taluc*, but it has not been reported to Mr. Read. The report of the *Marattah* merchants, I look upon as decisive, that it is not of so little value as interested persons have endeavoured to represent to the collector.

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The *Tahsildars* have reported, that nearly the whole of the arable lands are now cultivated; which is in direct opposition to both what I heard and what I saw.

The number of sugar-canes cut annually amount to 6,260,400, which should produce about 4471 *Maunds*, of about 30 lb. each.

Dry grains are chiefly cultivated in *Supa*; and about one twentieth part of the arable land there is employed for that purpose.

The cultivation of gardens has decreased about a third since the year 1754, when it is supposed that they were in the greatest possible prosperity.

Stock.

The stock employed in the country at present, according to Mr. Read, is

Talucs.	Ploughs belonging to			Cattle.	
	Landlords.	Tenants.	Total.	Buffaloes, old and young.	Cow kind, old and young.
Supa ...	2348	2043	4391	8992	19882
Soonda ...	1709	389	2098	3115	12234
Banawasi ...	804	454	1258	3658	7818
Billighy ...	1407	360	1767	1760	7515
Total...	6268	3246	9514	17525	47449

Population.

Mr. Read gives the following account of the population of these districts.

Talucs.	Houses, of which the following are occupied by						
	Total.	Christians.	Mussulmans.	*Brahmans.*	*Sivabhactars.*	*Jain.*	Slaves.
Supa ...	6929	87	515	1116	780	87	348
Soonda ...	3396	4	178	2015	417	21	61
Banawasi ...	2729	...	57	845	295	40	...
Billighy ...	2593	...	50	692	433	14	36
Total...	15647	91	800	4568	1925	162	445

Commerce.

The exports and imports by land are very considerable, as may be seen by the accompanying Statement. The former amount to *Rupees* 9,63,833; and the latter to 1,08,045. The *Rupee* is worth nearly 2s.

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STATEMENT shewing the Average Annual Quantity of Goods imported and exported in the Northern *Division* and *Soonda* by Land, 1800-1.

No	Names of the Articles.	Imported: *Nidge* of 12 *Maunds*.	Imported: Bullock-load of 6 *Maunds*.	Imported: *Maunds* of 44 *Seers Cutcha*.	Imported: *Seers Cutcha* of 24 *Rups* weight.	Imported: *Per* man's load (large)	Imported: *Per* man's load (small)	Imported: Potts.	Imported: *Kodi*, or scores.	Imported: *Adud*, or Pieces.	Total Value in *Rupees*.	Exported: *Nidge* of 12 *Maunds*.	Exported: Bullock load of 6 *Maunds*.	Exported: *Maunds* of 44 *Seers*.	Exported: *Seers* of 24 *Rupees* weight.	Exported: *Per* man's load (large)	Exported: *Per* man's load (small)	Exported: *Guddah*, or Potts.	Exported: *Kodi*, or scores.	Exported: Baskets	Exported: Pieces.	Total Value in *Rupees*.
1	Salt	...	6039	...	...	11¼	18½	...	...	...	18128	...	18544	...	...	...	1	...	...	...	...	74176
2	Lamp-oil seed (*Castor*)	...	55½	...	...	...	...	...	...	...	140	...	...	...	...	...	...	...	...	...	...	...
3	Sweet-oil seed (*Sesamum*)	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	24
4	Jungle-oil seed	...	5½	...	...	...	...	...	...	...	50	...	...	...	...	...	...	...	...	...	...	...
5	Sweet-oil (*Sesamum*)	...	242½	39¼	5	...	...	1	...	...	5985	...	...	...	...	...	...	...	...	...	...	...
6	Coco-nut oil	...	15	1081⅓	7½	...	...	1140½	...	...	13810	...	...	...	...	...	...	12743¾	...	...	...	12740
7	Sandal oil	...	...	5¾	...	...	...	...	...	...	1265	...	...	...	...	...	...	...	...	...	...	...
8	*Chillies* (*Capsicum*)	...	506⅛	9¾	...	2	5	...	...	...	4070	...	...	...	...	...	...	...	...	...	...	...
9	Tamarinds	...	43	...	...	...	...	...	...	...	130	...	16	...	...	...	...	...	...	...	...	96
10	Garlic	...	1	...	...	...	...	...	...	...	6	...	...	...	...	...	...	...	...	...	...	...
11	Onion	...	29½	...	...	...	...	...	...	...	90	...	...	...	...	...	...	...	...	...	...	...
12	Mustard	...	1½	...	...	...	...	...	...	...	18	...	...	...	...	...	...	...	...	...	...	...
13	Coriander seed	...	17½	...	...	...	...	...	...	...	158	...	...	...	...	...	...	...	...	...	...	...
14	Turmeric	...	...	...	...	...	...	...	...	...	...	...	14½	...	...	...	3	...	...	...	...	156
15	*Soonda* salt	...	2	...	...	...	...	...	...	...	12	...	...	...	...	...	...	...	...	...	...	...
16	*Cut* (*Terra Japonica*)	...	40	22	5	4	4½	...	...	...	685	...	27	22	...	...	4	...	...	...	...	555
17	Dry coco-nuts	...	7¾	2¼	...	...	...	...	...	...	147	...	158½	4	...	...	...	...	...	...	...	3820
18	Dates	...	112¼	40	...	19	8	...	...	...	1472	...	123¼	76¾	...	...	...	...	...	...	...	2453
19	Dry dates	...	...	...	...	...	...	...	...	...	...	...	1	147	...	...	...	...	...	...	...	612
20	*China* sugar	...	23½	¾	...	...	1	...	...	...	1460	...	...	...	...	...	...	...	...	...	...	...
21	*Ghee* (boiled butter)	...	4	...	...	...	...	...	...	...	168	...	...	¼	6	...	...	...	...	...	...	3
22	Plumbs	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	18
23	Honey	...	...	...	...	...	...	...	...	...	...	...	6	...	...	...	...	1	...	...	...	114

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STATEMENT shewing Average Annual Quantity of Goods imported, &c.—*continued.*

No.	Names of the Articles.	Imported: *Nidge* of 12 *Maunds.*	Imported: Bullock-load of 6 *Maunds.*	Imported: *Maunds* of 44 *Seers Cutcha.*	Imported: *Seers Cutcha* of 24 *Rups.* weight	Imported: *Per* man's load (large)	Imported: *Per* man's load (small)	Imported: Potts.	Imported: *Kodi,* or scores.	Imported: *Adud,* or Pieces.	Total value in *Rupees.*	Exported: *Nidge* of 12 *Maunds.*	Exported: Bullock-load of 6 *Maunds.*	Exported: *Maunds* of 44 *Seers.*	Exported: *Seers* of 24 *Rupees* weight.	Exported: *Per* man's load (large)	Exported: *Per* man's load (small)	Exported: *Guddah,* or Potts.	Exported: *Kodi,* or scores.	Exported: Baskets.	Exported: Pieces.	Exported: Total value in *Rupees.*
24	Wax	..	...	...	...	...	..	...	...	...	..	...	2	169½	2½	...	2	...	...	...	...	2170
25	Cotton	...	12½	6¾	...	..	...	...	..	...	163	...	...	...	...	..	...	...	...	...	...	...
26	Cashew nuts	...	...	2¾	...	1½	...	...	..	...	8	...	1	66½	...	..	...	...	..	...	...	72
27	Cinnamon	..	...	...	...	...	...	...	...	...		...	4	...	...	..	...	...	...	...	...	72
28	Bastard ditto (*Cassia*)	...	...	...	...	...	...	...	...	...	...	...	10	...	...	...	...	...	...	...	...	180
29	Brimstone	...	48	...	...	...	...	..	...	...	864	...	...	...	..	...	...	...	..	...	...	180
30	Saltpetre	..	3	...	...	...	...	..	...	...	54	...	...	...	...	...	...	...	...	...	..	...
31	*Cuddakah* (a seed)	...	...	...	...	...	...	...	..	...	...	...	44	...	...	...	3½	...	.	...	...	23
32	Sundry Curry-stuffs	...	361	7½	...	5½	65¼	...	...	...	..	...	1244¾	...	...	...	25	...	.	...	...	...
33	Coco-nut	...	2824	...	...	906¼	1103½	...	...	57	19247	...	1536	...	...	229	202	..	...	...	76774	12508
34	Toddy (palm wine)	...	...	...	...	...	...	2	...	...	4	...	...	...	...	...	...	287½	.	..	...	575
35	Iron bars	...	65½	...	...	..	...	...	...	320	1422	...	...	...	...	...	...	...	..	...	...	...
36	Iron pots	...	...	...	...	..	...	...	...	1	40	...	...	...	...	...	..	...	...	...	4	170
37	Ploughshares	...	...	...	...	..	...	...	...	57	14	...	...	...	...	...	...	...	..	..	...	...
38	Bill hooks	...	...	...	...	..	..	...	..	71	71	...	...	...	...	...	..	...	...	...	...	...
39	*Coir* (cordage made of coco-nut)	...	36½	1¼	...	15¼	8¼	...	...	...	474	...	4½	37	..	7	...	...	..	..	56½	143
40	White thread	...	...	...	...	..	1	...	...	...	3	...	..	...	...	...	...	...	...	...	...	...
41	Silk ditto	...	2	...	...	..	...	...	..	...	3568	...	...	...	...	...	...	...	...	...	...	...
42	Silk	...	...	...	...	..	...	...	...	14	140	...	...	...	..	...	1	...	...	..	..	200
43	Broadcloth	...	..	...	...	...	...	...	..	11	...	...	...	...	...	...	2	...	.	...	...	240
44	Sundry cloths	...	594½	...	...	56	113	...	1	89	...	...	...	...	...	...	...	...	...	..	...	...
45	Black *Cumlies* (blankets)	...	99½	...	...	1	6	...	1¼	453	10615	...	...	...	...	...	...	...	...	...	...	...
46	Salt-fish	...	4½	...	...	61	66½	...	...	...	56	...	...	...	...	...	...	...	...	..	...	...

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47 Red paint	...	1	...	...	...	...	...	...	...	9	...	17½	...	...	...	67	...	...	...	...	100
48 Tobacco	...	309	88½	5	...	2	...	...	...	5830	...	8½	2	...	...	...	...	...	...	...	88
49 *Jagory* (inspissated juice of sugar-cane)	...	249	316¼	...	...	...	...	...	...	1810	...	21	951	...	...	...	...	...	...	...	2154
50 *Chunam* (lime)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	206	52
51 Sealing wax	...	¾	...	...	...	...	...	...	...	72	...	...	...	...	...	...	...	...	...	...	...
52 *Dammer* (Resin)	...	...	...	...	...	...	...	...	...	...	...	...	¾	...	...	...	...	...	...	...	1
53 Arrack	...	...	...	...	...	...	16	...	...	64	...	...	...	...	...	...	...	...	...	...	...
54 Sheep	...	...	...	...	...	...	...	...	983	1475	...	...	...	...	...	...	...	...	...	...	...
55 *Utchada* cloth	...	...	...	...	...	...	...	...	1139	2272	...	...	...	...	...	...	...	...	...	...	...
56 *Gunny* sackcloth	...	...	...	...	...	...	...	...	12	18	...	...	...	...	...	...	...	...	...	...	...
57 *Dungaree* (cloth)	...	...	...	...	...	...	...	...	6	3	...	...	...	...	...	...	...	...	...	...	...
58 *Cadjans* (mats)	...	...	...	...	2	1	...	...	5	4	...	...	...	...	...	...	...	...	...	...	...
59 Country *Kittisalls* (umbrellas)	...	...	...	...	4	8	...	...	...	24	...	...	...	...	...	...	...	...	...	73	10
60 *Rattan* boxes	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
61 Country paper (bundles)	...	...	...	...	...	1	...	...	...	8	...	...	...	...	...	...	...	...	...	137	5
62 Sugar cane	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
63 Stone plates	...	8	...	...	...	...	...	...	...	32	...	...	...	...	28	...	...	...	...	...	14
64 Skins	...	...	...	...	1	...	...	...	...	8	...	...	...	...	...	...	...	...	...	2	1
65 *Jack Stones of the Artocarpus*	...	...	...	...	...	...	...	...	...	...	...	...	...	...	15	...	...	...	...	29	158
66 *Betel-leaf*	...	47	...	...	54	49	...	...	...	319	...	...	...	...	305½	5	...	...	...	...	31
67 *Dooleys* (litters)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	1734
68 *Oree* plantains	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	14	78
69 Horses	...	...	...	...	...	...	...	...	2	...	...	...	...	...	3	2	...	...	62	...	4110
70 *Hookah* snakes	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
71 Cattle	...	...	...	...	...	...	...	...	574	11560	...	...	6	...	...	...	...	...	...	...	3
72 *Mangoes*	...	...	...	...	...	...	...	...	...	...	...	14	...	...	...	...	...	...	...	73	1470
73 *Jack* fruit	...	...	...	...	...	...	...	...	...	...	...	3	...	...	...	...	...	...	...	...	28
74 *Guavas* fruit	...	...	...	...	...	...	...	...	...	...	...	4	...	...	...	...	...	...	...	...	3
75 *Betel-nut* 1st sort	...	...	...	...	...	...	...	...	...	...	10251⅓	...	2½	9½	...	...	...	...	...	...	618081
76 Ditto 2d ditto	...	...	...	...	...	...	...	...	...	...	1245¾	...	10	5½	...	...	...	...	...	...	59836
77 Ditto 3d ditto	...	...	...	...	...	...	...	...	...	...	168½	...	½	¾	...	...	...	...	...	...	5356
78 Pepper	...	...	...	...	...	...	...	...	...	...	1350	...	¼	7¼	...	...	...	...	...	...	109863
79 Cardamoms	...	...	...	...	...	...	...	...	...	...	121½	...	1¾	8½	...	...	...	...	...	...	48664
80 Sandal-wood	...	...	...	...	...	...	...	...	...	...	1024	44	...	...	...	...	...	...	...	...	1024
									Total value imports *Rupees*	108045										Total value exports *Rupees*	963833

(Signed) ALEXANDER READ, Collector.

1801. March 18. Appearance of the country. *Chandra-gupti.*

18th *March.*—I entered the territory of the *Mysore Raja* and went to *Chandra-gupti.* The country through which I passed is level, and would appear to have been at one time almost entirely cultivated. A great part of it is now overgrown with trees, which have not yet had time to arrive at a great height. *Chandra-gupti,* or *Chandra-guti,* is also called simply *Guti*; care must therefore be taken to distinguish it from *Gutti,* a place of some note situated at a distance toward the north. It formed one of the first acquisitions of the house of *Ikeri,* and has a fort, which stands on a high peaked hill. The fable of the natives says, that this hill was formerly of an immense height, and prevented the moon from going round in her due course; whence the name of the place is derived. When the *Racsha Jeltasunda* had defeated *Krishna,* that incarnation of the deity hid himself among the rocks of this hill. The enraged demon, not being able to discover the god, consumed the hill to its present size, very much to the satisfaction of the moon. It may perhaps be thought, that this fable may have arisen from a tradition of the hill having been formerly a volcano. For my own part, I think that these stories are so monstrous, that nothing can be drawn from them, but a commiseration for the credulity of mankind. In times far posterior to those of *Krishna* this was a place of great celebrity; the town at the foot of the hill having been the residence of *Trenetra Cadumba Raya,* on the site of whose palace I am encamped. A well, and some faint traces of walls and buildings, still mark the spot. On the fall of this dynasty the place lost its consequence. About a hundred and fifty years ago, it suffered much from an invasion by a Mussulman named *Seyd Assariphia.* In the time of *Hyder, Momashecara Nayaka, Polygar* of *Billighy,* destroyed it. Soon afterwards the commandant (*Killidar*) betrayed the fort to *Parseram* (*Parasu-Rama*) *Bhow*; but seven months afterwards he was compelled to restore it. From that time the inhabitants had no molestation, until the troubles occasioned by *Dundia,* who held it almost a month. It at present contains about 100 houses.

Soil of the neighbourhood.

To the eastward of the hill *Chandra-gupti,* although much of the country is waste, it is in a better condition than *Soonda.* Much of it is under *Ragy,* which pays no revenue; and between every two crops the ground is allowed three years fallow. The natives allege that the soil is very poor. I have never seen stronger stubble, and to all outward appearance the soil is rich. I suspect that the principal defect is in the cultivators; but without actual experiment, it would be rash to speak decidedly on the subject.

Iron ore.

About a coss north from *Chandra-gupti* is a hill producing iron ore, which is wrought to some extent. It is found in veins intermixed with *Laterite,* like the ore of *Angada-puram* in *Malabar.* The ore is of the same nature with what is usually smelted in the peninsula; that is to say, it is a black sand ore, which here is conglutinated by clay into a mass, and contains less extraneous matter than common. It is broken into small pieces, and the little masses of iron are picked

out of the clay. Every man employed in the work pays to government two *Rupees*, or about 4*s*.; and they have all an equal share of the produce. There being no tax on the forges, is perhaps the reason why none are mentioned in the public accompts of this *Rayada*, in which much iron is smelted. The workmen say, that in *Billighy* and *Sudha*, there is abundance of ore; but in these districts there are no people who understand the process. 1801. March 18.

The rock on which the fort is built is a white granite without observable *strata*, exactly like that of *Jamal-abada*, and which is common throughout *Haiga*. The nature of the minerals there and here is indeed quite similar. *Strata.*

In this district (*Taluc*) there is some sandal-wood of a very good quality. It grows on dry hard ground, where of course the forest trees do not arrive at any great size. It is never planted, but grows from the seed which the birds disperse. In *Hyder's* government, in order to regulate the market properly, it was cut by the officers of revenue (*Amildars*); and, after having been divided into proper billets, was sold on the account of government. *Purseram Bhow* cut all that he could, and the remainder was much injured by renting it out to merchants. All that was good for any thing was cut last year; but three years hence there will be some more fit for the market. The quantity procured last cutting was about 40 *Candies*, of 20 *Cutcha Maunds*, each weighing about 26 lb. Its price is commonly about 30 *Pagodas*, or 120 *Rupees*, a *Candy*. The following is considered to be the proper management. The trees, after having been cut, are allowed to remain in the woods for one month. They are then taken into a house; the white wood is removed, and the sandal, or heart, is cut into billets, and stored. The roots are dug up, and oil can be extracted from them, as well as from the chips, and the cuttings of the stem. All the persons who extract the oil are Mussulmans. Sandal-wood.

19th *March*.—I went three cosses to *Sunticopa*, or dry-ginger-village. The country through which I passed is by nature very fine; and the trees, by which much of it is overgrown, are low, a proof of its not having been long waste. The fields have never been enclosed, and the cultivation of dry grains is not at all understood, the ground being cultivated once only in four years. The rice grounds are tolerably well occupied. It probably would answer good purposes to bring here, from *Priya-pattana*, a colony to cultivate *Car' Ragy*, and to send thither a colony of *Haiga Bráhmans*, to form *Betel-nut* plantations. No tanks are required for the rice grounds; but in this district of *Chandra-guti*, there are many small ones, for the use of gardens. The rice lands suffer much from the inundations of the *Varada*, which frequently sweep away the crops. Of course, those near the river let every low, 5 *Candacas*, or 300 *Seers* sowing, being only taxed at four *Rupees*. Where the inundations do not reach, the lands let at from two to four *Rupees* a *Candaca*. The natives acknowledge twelve seeds as the produce of land which is properly laboured and manured. March 19.

1801. March 19. *Malavaru*, or *Malawars*, and their government.

The most numerous class of inhabitants are *Halepecas*, whose customs I described while in *Canara*. There are also many of rather a low class of *Sivabhactars*, called *Malavaru*, or *Malawars*. Most of the *Gaudas* are of this class; and the father of *Sedasiva Nayaka* was a *Malawar*, the *Gauda* of *Kilidi*. The people do not complain of the change of government from his descendants to *Hyder*; but they say, that not above a tenth part of the inhabitants remain. This devastation was occasioned, first by a cruel invasion of the *Marattahs* headed by the *Peshwa*, and afterwards by a sickness inflicted by the goddess *Havali*. This appears to have been a remittent fever, a disease that is still very prevalent; but of late its virulence has considerably abated.

Worship of *Nandi*, or the *Baswa*, and of the *Saktis*.

In this neighbourhood the village god is *Nandi*, or the bull on which *Siva* rides. He is also called the *Baswa*, and receives no sacrifices, which are held in abhorrence by the *Sivabhactar* chiefs (*Gaudas*). The *Halepecas* and *Whalliaru* offer bloody sacrifices to *Marima*, and the other *Saktis*, but have no temples. The votaries go to the side of some river, put up a stone which represents the diety, and offer it the blood. From this worship the *Sivabhactars* entirely abstain; and under their government the temples of the *Saktis* were called *Butagallu Champadi*, or devil's huts, a name which the Mussulmans did not change.

March 20. Appearance of the country.

20th *March*.—I went three cosses to *Kilidi*. The greater part of the country is pretty level; but the higher grounds seem to be entirely neglected, although the soil is in general apparently good. Most of the trees are small, owing to their being young; but in places where they are aged, they have grown to a large size, and support pepper vines. *Tippoo* prohibited the produce of these from being gathered, and of course the woods supporting them were neglected; but some pains having last year been bestowed, there is now a tolerable crop. In the neighbourhood of *Kilidi* are many gardens of *Areca* palms, in which pepper is raised; but among the *Arecas* neither *Betel-leaf* nor cardamoms are cultivated. The *Arecas* are planted wherever there is a supply of water, without regard to the exposure; but they are sheltered from the west and south by several rows of trees.

History of the *Kilidi* family.

I here found a *Bráhman*, named *Bayluru Dwuppa*, whose ancestors have been the hereditary writers of the chronicles of the *Kilidi* family. He engaged to give me the family book, called *Kilidi Ráya Paditti*. It is in the old dialect and character of *Karnata*, and contains 400 *Slokams*, or distichs; for, like all the other works of any note among the *Hindus*, it is poetical. He afterwards forwarded a copy of the work to *Purnea*, who was so good as to add a translation into the modern language and character, and both of them have been delivered to the Bengal government. The family of the historiographer enjoyed an *Enam*, or free land, to the amount of sixty *Pagodas* a year.

From some particulars explained to me out of this historical

poem it would appear, that its chronology differs considerably from 1801. that of *Ramuppa*. The *Kilidi* family were originally hereditary March 20. chiefs (*Gaudas*) of five or six villages in this neighbourhood, and were *Sivabhactars* of the *Malavara* caste. *Bhadraconda*, the son of *Basw'-uppa Gauda*, entered into the service of *Krishna Rayaru*, who gave him the name of *Sedásiva Nayaka*, and conferred on him the hereditary government of some districts in the year of *Sal.* 1422, being *Sidarty*. *Kilidi* continued the seat of government until *Sal.* 1436 only. From *Ikeri* it was removed to *Bidderuru*, in *Sal.* 1568 (*A. D.* $164\frac{5}{6}$.) *Viru Magi*, the last princess of the house of *Kilidi*, or *Ikeri*, says *Dwuppa*, allowed her adopted sons no power. She put the first to death when he was twenty-four years old, because he presumed to interfere with her intrigues. Soon afterwards *Medicarey Nayaka*, *Rágá* of *Chatrakal*, took a young man, a weaver by caste, and brought him up as *Basw'-uppa Nayaka*, the murdered prince. Finding, however, that he was not able to make any advantage of the young man's claims, he lent him to *Hyder*, who espoused the cause of the weaver with much seeming earnestness, and carried him about with great pomp. He accompanied the pretender through the whole country, merely as an ally; and, *Viru Magi* being detested on account of her criminal life, many of the commandants of fortresses were induced to deliver up their charge to the pretended *Basw'-uppa*. These were immediately garrisoned with the troops of his friend *Hyder*. The princess, conscious of the detestation in which she was held, retired with her adopted son *Somashecara* to a stronghold named *Belalla Ráya Durga*, and left her capital in charge of the *Delawai*, or prime minister, named *Virapadruppa*. On the approach of *Hyder* and the pretender, the people of *Bidderuru* deserted, and the Mussulman took possession without trouble. He laid siege to *Belalla Ráya Durga*, and after some time took the princess (*Rany*) and her adopted son prisoners. Thence he returned to the capital, on which he bestowed his own name of *Hyder Nagara*; and, disguise being no longer necessary, he began to treat the pretender with the utmost contempt, and at length induced the young man to quarrel with him, by taking his favourite dancing girls, who by intercourse with a Mussulman were defiled. Immediately after the rupture, the pretender, the princess, and her adopted son, were sent to *Madhu-giri*. Soon afterwards they were relieved by the *Marattahs*, who altogether neglected the pretender; and, knowing the weakness of his claims, dismissed him. The princess died on the road to *Poonah* of a pain in her bowels; but the *Marattahs*, with a view of taking advantage of his claims, carried the son to their capital. The people here do not know what has been his fate, and seem very little interested about the matter. The pretender, being in absolute want, applied to *Hyder*, who gave him free lands to the amount of 120 *Pagodas* a year, or 40 *Rupees* a month. He left two sons, who on the fall of *Seringapatam* collected a rabble, and began to plunder in the neighbourhood of *Hossodary* (*Wostara* of our maps, I suppose). They were soon

1801. March 20. taken by a party of British troops, and were immediately hanged as lawless robbers.

Kilidi, and the rise of *Sedasiva*. *Sedásiva* built a fort at *Kilidi*, which continued to be garrisoned till the time of *Hyder*. The town never was large, and the only remarkable building is a temple of *Iswara*, which *Sedasiva* erected by orders of the god, who appeared to him in a dream. As a curiosity, I was shown the pit whence *Sedásiva* dug out a treasure, and a sword, the commencement of his great fortune. To this he was conducted by a *Naga*, or hooded serpent, sent for the purpose by some propitious deity. While *Sedasiva* was asleep in a field, the *Naga* came, and shaded his head from the sun by raising up as an umbrella its large flat neck. The young man was awaked by a shriek from his mother, who, in looking after her son, found him under the power of the monster. He immediately started up to escape, but was opposed by the serpent, until he consented to follow it quietly, and was conducted to the place where the treasure was hid. Here the snake began to bite the ground, and make signs. At length *Sedasiva*, having dug into the earth, found a cave filled with treasure, and containing a sword. Such are the fables by which the *Hindu* chiefs endeavour to gain the admiration and respect of their countrymen, whose credulity indeed renders the means very adequate to the end proposed.

March 21. *Sagar*, and its commerce. 21st *March*.—I went three cosses to *Ikeri*, through a country entirely like that which I saw yesterday. Near *Ikeri* is a well-built town, named *Ságar*, which at present is the residence of the chief of the district (*Amildar*). It stands on the southern bank of the *Varada*, which is here a very small stream, as being near its source. *Sagar* has some merchants of property, who export to a considerable distance the produce of the country. The exports are pepper, *Betel-nut*, and sandal-wood; about equal quantities of which go to the dominions of the *Nabob* of *Arcot*, and to the country south of the *Krishna*, lately ceded by the *Nizam* to the Company. The prices are highest in the last mentioned territory; but the expenses and duties are in proportion. The returns from both countries are chiefly made in cloths, there being no manufactures in this neighbourhood. To *Haiga* the merchants of *Sagar* send pepper, cloth, iron, and grain; they receive from thence salt, coco-nuts, and *Cut*, or *Terra Japonica*. About one half of all the returns made to this country for its produce are in cash. The merchants say, that the sandal wood of the *Ikeri Ráyada* is superior to that of either the south or east. They acknowledge the inferiority of their *Betel-nut*. According to the report of the custom-house, the quantity of *Betel-nut* exported annually from *Ságar* is about 8000 loads. That of pepper is about 500 loads. The load is about 8 *Maunds*, or 196¼ lb.

Ikeri. During the time *Ikeri* was the residence of the princes descended from *Sedásiva*, it was a very large place, and by the natives is said, in round numbers, and with the usual exaggeration, to have contained 100,000 houses. Like *Sudha*, its walls are of very great ex-

tent, and form three concentric enclosures, rather than fortifications. It had also a citadel, but of no great strength, which until eight or ten years ago continued to be garrisoned. Within it was the palace of the *Rájá*, constructed of mud and timber, like those of *Tippoo*, and by no means a large building. The wooden work has been neatly carved, and covered with false gilding. The temple of *Siva*, where the town stood, is a large edifice, and is formed of stone brought from a great distance; but, as usual, it is destitute of either elegance or grandeur. It is now repairing, and workmen have been brought from *Goa* for the purpose; even the Portuguese of India being more skilful artists than any that can be procured in this country. At *Ikeri* there remains no town, but the devastation has not been occasioned by any calamity. When the court removed to *Bidderuru*, the inhabitants willingly followed. *Ikeri* continued, however, to be the nominal capital; the *Rájás* were called by its name, and the coins were supposed to be struck there, although in fact the mint was removed. 1801. March 21.

So long as the government of the *Sivabhactar* family lasted, the coins continued to be called *Ikeri Pagodas* and *Fanams*. On the conquest, the name was changed, first by *Hyder* into *Bahadury*, and then by *Tippoo* into *Sultany*. The princes of *Mysore* never coined *Pagodas*; but *Canterua Narasingha Ráya*, the first of them who acquired considerable power, coined gold *Fanams*, called after his name *Canter'-ráya Fanams*, which we usually write *Cantery*. Ten of these formed a nominal *Pagoda*, which accomptants commonly use. On the fall of *Tippoo*, the *Mysore* government, having found it convenient to coin *Pagodas* of the same value with those before current, struck them at *Mysore* and *Nagara*, but restored the old name of *Ikeri*. Coins.

The *Sâgar* district *(Taluc)* extends to the bottom of the mountains, on the declivity of which are many woods that spontaneously produce pepper. These forests are said to be very unhealthy. Forests of the Ghats.

The *Amildar*, who is a man of plain manners and good sense, says, that in this neighbourhood dry grains have been often tried, but have always failed; and that the goodness of the soil is merely apparent; for in general it is very shallow, and placed on a *substratum* of *Laterite*, which renders the soil above it very unproductive of grain. Even rice thrives ill, although the deepest and richest soils are reserved for its cultivation. It must be observed, that in all the countries where it is found, the opinion of the unfitness of the soil for dry grains is prevalent. The *Amildar* makes a curious observation. He says, that in the country to the eastward the surface is covered with stones; but under these there is a fine cool earth; while here, the surface is earth, but under that there is a dry rock which burns up every thing. It must, however, be observed, that the forests here are greatly superior to those farther east; owing probably to the roots of trees being able to penetrate into the crevices of the rock, and to get at water, which is here generally found Soil.

1801. March 21. at no great depth from the surface: but to the eastward, before water can be procured, the wells must be dug to a considerable depth.

Account of the *Marattahs* by the *Amildar*. The *Amildar* says, that he was employed by the *Sultán* in a diplomatic capacity at *Poonah* when *Seringapatam* was taken. He would have been successful in procuring assistance for his then master, had the dissensions among the *Marattah* chiefs permitted them to act. *Scindia* was decidedly in favour of the *Sultan*; but was quite destitute of money; and the army which he had at *Poonah*, after having expended all the means that they possessed, had for some time been subsisted on plunder. The *Amildar* says, that *Tippoo's* government, when compared with that of the *Marattahs*, was excellent; and, notwithstanding all the evils the people suffered from the extortions of the *Asophs*, and the attacks of invading armies, they enjoyed a comparatively great security. The government never subsisted by open plunder; whereas among the *Marattah* chiefs there are very few who do not support their troops by avowed robbery.

March 22. Appearance of the country. 22d *March.*—I went three cosses to *Ghenasu-guli*. The country all the way is hilly, and is considered by the natives as totally useless, although in many places the nature of the soil would admit of the use of the plough. It does not even answer for pasture, and the coarse, rank grass that grows upon it in the rainy season cannot be made into hay. Once a year, in order to keep the country clear, it is burned. This is probably the reason of the stunted appearance of the trees. On the whole, no desert in Africa can be less productive of use to man. *Ghenasu-guli.* At *Ghenasu-guli* there is no market (*Bazar*); but there is a small village of *Haiga Bráhmans*, who, to judge from the appearance of the houses, are in easy circumstances. They cultivate some fine gardens. I here met with *Ram' Row*, chief officer (*Subadar*) of the *Nagara* principality (*Rayada*), a very gentleman-like person, which is rather uncommon in people of his caste. He agrees entirely with the other natives, in thinking the higher lands of this *Rayada* totally useless.

March 23. Wild pepper, and appearance of the country. 23d *March.*—I went three cosses to *Duma*, or *Dumam*. The country resembles that which I came through yesterday, and on the whole way I did not see the smallest trace of cultivation. I passed through a very long wood where pepper grows spontaneously. The trees are very fine, and the soil is apparently good; but it is quite neglected by the natives, who say that the pepper is of no value. It is watered by the *Pada-gópí*, a rivulet that, after passing through the *Garsopa* district, falls into the inlet of the sea at *Honawera*. At *Duma* there is only one house belonging to a *Malawar Gauda*; but it is a very large one.

March 24. 24th *March.*—Although I had desired the guides to divide the road into tolerably equal stages, I found this day's journey to *Fatah-Petta* very short. It was called two *Sultany* cosses. The country is rather opener than what we passed through on the two preceding

days; but a large proportion of the small quantity of rice ground is waste. 1801 March 24.

Fatah-petta, or the town of victory, is usually pronounced *Puttypet*. It was built by *Hyder* in commemoration of an advantage which he gained at this place over the troops of the princes of *Ikeri*. At first he built five hundred houses; but finding that the place injured the trade of *Naggar*, and gave a facility to smuggling, he reduced the shops to fifty, and they have now decreased to twenty five. Near the town runs a small stream, commonly called *Ram Chandra-pura* from the place where it has its source; but its proper name is the *Sarawati*. North from *Fatah-petta*, it receives a small branch, and forms the *Pada-gopi*. *Fatah-petta.*

At this place the *Rajas* had a farm, which an overseer now cultivates on account of the government. It produces coco-nuts, *Arecas*, and rice; and is finely supplied with water by a canal which is supplied from a perennial stream as clear as crystal. No experiment is made at this farm, nor any attempt at improving the usual cultivation of the country; which is the only rational inducement that could lead a prince to farm. On the contrary, it is in a more slovenly condition than any plantation that I have seen in the country. At this farm the *Rajas* had a *Mahal*, or palace, consisting of three squares, which are surrounded by low, mean buildings covered with tiles. These, however, contained baths, and all such conveniences as a *Hindu* chief requires. Near the palace are stables for the cattle of the farm. Farm belonging to the *Rajas*.

25th *March*.—I went two cosses to the centre of *Hyder Nagara*, through a fog so thick that I could see little of the country. It is extremely hilly, and overgrown with woods, in which there are many fortified defiles and passes, that are guarded by armed men in the service of the *Mysore Rájá*. March 25. *Hyder Nagara*, or *Bidderuru*.

I remained three days at *Nagara*, where I met with a kind reception from Captain Lloyd of the *Bombay* army, who commanded the garrison in the fort.

Nagara was originally called *Bidder-hully*, or *Bamboo-village*, and consisted of a temple dedicated to *Nilcunta* (*Blue-neck*, one of the titles of *Siva*), and surrounded by a few houses, under the direction of a *Bráhman* chief. *Sivuppa*, son of *Chica Suncana*, removed the seat of government from *Ikeri* to this place, and changed its name into *Bidderuru*, or *Bamboo-place*. The whole revenue of the country being then expended here, it immediately became a town of great magnitude and commerce. The situation is also favorable for trade, as the *Hosso Angady* pass, leading from *Mangalore* this way, is one of the best roads in the western mountains. The town is said to have contained 20,000 houses, besides a very great number of huts; but, on account of the inequality of the ground, could never have been closely built. It was defended by a circle of woods, hills, and fortified defiles, extending a great way in circumference, and containing many *Bamboos*, from which the name of the place was

1801. March 25.

derived. The space within these defences is much larger than was ever occupied by the city, and contained many hills, woods, gardens, and rice fields. Toward the centre stood the *Raja's* palace, situated on a high hill, and surrounded by a citadel. To this *Hyder* added some new works; but, being commanded by some neighbouring hills, it never was capable of much defence. After *Hyder* took the town, its trade increased greatly; for he made it his principal arsenal, and employed many people in making arms and ammunition. He also continued the mint, and much money was coined there during his reign. He gave great encouragement to merchants, and endeavoured to introduce the cultivation of mulberries and silk, but in this he had little or no success. On the outside of the fort, he built a palace, and resided in it three years. On the invasion by General Mathews, the commandant of the fort, by way of showing an inclination to make an obstinate defence, burnt the palace; and the whole town shared the same fate during an engagement which took place on *Tippoo's* coming up with his army. It is commonly reported by our officers, that General Mathews was surprised; and, indeed, from his infatuated conduct, that would appear to have been the case; yet the people here say, that he had given them eight days previous notice of the probability of a siege, and of consequence they lost little more than their houses, as they had time to remove all their valuable effects. The palace was rebuilt by *Tippoo*, elated with the victory of which he made so cruel a use; but in the short time that has since intervened, it is now almost a ruin; for it is built entirely of mud and timber; and on these materials the excessive rains of this climate have so strong an effect, that without a very complete repair once in three or four years, no building of this kind will stand for any length of time. *Tippoo* also re-established the mint and arsenal, and recalled the people; but a great many of them did not return, being under suspense for the event of the siege of *Mangalore*.

After the peace of 1783, *Tippoo* returned to *Bidderuru*, and immediately afterwards his officers began to be troublesome to the merchants, and put a stop to all commerce with those who did not belong to the *Sultan's* dominions. At his death the town contained between fourteen and fifteen hundred houses, besides huts; one hundred and fifty new houses have been since built, and merchants are resorting to it from all quarters. It cannot be expected, however, to arrive at its former greatness, as it is neither the seat of a court, nor of any public works. It possesses no manufactures; so that its chief support will be its trade, as being a convenient thoroughfare. The mint is maintained, and every liberty granted to merchants; which seems to be all the encouragement that could with propriety be given.

Christians.

During the princesses' (*Ranys*) government a hundred families of *Kankany* Christians had settled at *Bidderuru*, and subsisted chiefly by distilling and selling spirituous liquors. Their condition may be estimated by knowing, that the building of their church cost 12

Pagodas, or less than 5*l*. They were, however, able to support a priest, and to maintain some form of worship. In the reign of *Tippoo* they were all carried to *Seringapatam*; but, since the fall of that place, ten families have returned, and are living in great poverty. The church was pulled down by the *Cazi*, who was a furious bigot, and delighted in overthrowing what he called the temples of idolaters. There were at this place many inscriptions on stone; but they were all broken to pieces by the zealot. With the ruins of temples he built a handsome mosque, and settled in it three priests (*Moullahs*), with whom he passed his leisure time in prayer, and exercises of religion. When he saw the Christian flag displayed on the fort, he could not endure the abomination, and immediately withdrew towards *Mecca*. The three priests remain in the mosque, where, in place of being pampered by the charity of the *Asophs*, and other officers of distinction, they drag out an existence upon an annual pension of 2 *Pagodas*, or 16*s*. Their being allowed any thing is however a great proof of *Purnea's* moderation; as they are still living in the spoils of *Hindu* temples, torn from the gods at their instigation.

1801. March 25.

Mussulman bigot.

During my stay here I had frequent intercourse with the *Hujiny Swami*, one of the four great chiefs of the *Sivabhactar* religion. His predecessors were the *Gurus* of the *Ikeri* family, and had obtained from them free-gift lands to the yearly amount of 3000 *Pagodas* (1208*l*. 16*s*. 8*d*.) By *Hyder* and *Tippoo* the whole was gradually taken away, and no allowance has been made to him since the country has been granted to the *Rájá* of *Mysore*. He has, it is true, a village considered as his property; but he pays rent for it like any other farmer. Whether it be owing to his poverty or to his good sense I know not, but he is quite free from pride or affectation; a kind of virtue that I do not expect among those who, like him, are considered by their followers as incarnations of the deity.

Hujiny Swami.

The *Swami* says, that a brother of *Chinna Basw'-uppa* is still alive in the *Marattah* territories, and lives near *Savanuru*. *Somashecara*, the last adopted son of the princess, died in the *Marattah* country unmarried, but has left behind him relations who are living with the brother of *Chinna Basw'-uppa*. By the *Swami* this person is considered as the lawful heir of the family. In case of his line failing, the relations of *Somashecara* would be entitled to the succession.

Remains of the *Ikeri* family.

The original *Matam* or college of the *Hujiny Swami* was at *Harapunya-hully*; but the seat was removed to this neighbourhood in the time of *Choudeia Budreia*, who founded *Ikeri*. According to the *Swami*, *Sivabhactar* is the proper name of the caste, which arose in the following manner. *Iswara*, having been displeased that his worship was neglected on this earth, commanded *Baswa*, or the bull on which he rides, to assume a human form, and to recall mankind to the true worship. *Baswa* was very reluctant to go among such a wicked race of beings; but at last consented, and took upon himself the form of a child, and was born in the family of a *Bráhman*. Having, while a boy, performed sundry miracles, and per-

Account of the *Sivabhactars* by the *Swami*.

1801. March 25. suaded his supposed parents of his divine nature, he was called by the name of *Baswana*. In the year *Vicrama* of the *Kali-yugam* 3875 (*A. D.* 775), he took with him his sister, and went to *Kalyan-pura*, a city in the country now belonging to the *Nizam*, but at that time the residence of a prince named *Bejala*, who was a *Jain*. While this *Raja* was sitting in his court surrounded by all his officers, there fell from the heaven called *Coilasa* a letter, which no one present could read. The stranger, who had already obtained some reputation, was called, and read the letter, which informed the *Rájá*, that in a certain place he would find a treasure amounting to some millions of *Rupees*. The treasure having been found, *Baswana* was made prime minister, and married the daughter of a certain *Moduersa*. *Baswana's* sister now became pregnant, without having been married. She alleged, that she had been impregnated by *Iswara*; and, as a proof of her veracity, the child came from her back, in place of being born in the usual manner. The child was called *Chinna Baswana*. The *Baswa* then began publicly to teach, that the only true worship was that of *Iswara*, or *Siva*; and, having gained many proselytes, he made 196,000 *Jangamas*, some of whom were allowed to marry, and others were ordained to be *Sannyásis*. In the year *Racshasa*, of the *Kali-yugam* 3911 (*A. D.* 811), the time for the *Baswa's* remaining on earth having expired, he went to *Capily*, a place at the junction of the *Malapahari* (*Malpurga*) with the *Krishna*. At that place was a celebrated image of *Iswara*, which, on the appearance of *Baswana*, opened, and desired him to enter. *Baswana* replied, that nobody would believe that he had entered into a stone, and requested that the god would assume the form of a *Jangama*; which he accordingly did, and, having clasped *Baswana* in his arms, they became as one person, and ascended to *Coilasa* on Wednesday the 1st of *Margasirsha*, at 21 hours (*Gurries*) of the night.

Chinna Baswana succeeded his uncle as minister, and three months afterwards *Bejala Rájá* was killed by three servants of that personage, named *Jagádeva*, *Maleya*, and *Bumuna*. He was succeeded by *Vira Vassunta*, who is allowed by the *Swami* to have been also a *Jain*.

The *Sivabhactars* are divided into two sects; the one is called *Vira Siva*, and comprehends all the *Jangamas*, and by far the greater part of the *Banijigaru*, who are of a much higher rank than the artists and cultivators who wear the *Linga* or emblem of their deity, and who compose the second division called *Samana Siva*. All the descendants of *Jangamas* continue to be of that class, whose proper profession, like that of the *Bráhmans*, is to subsist upon alms. The *Upadesa* of a *Jangama* may be given to any *Sivabhactar*, who is thus adopted into the sacred order; but this practice is condemned by those who are strict. The descendants, however, of these adopted *Jangamas* enjoy all the privileges of the sacred order. This class of men has so multiplied, that in order to procure a subsistence

many of them are compelled to pursue the low occupations of the world. 1801. March 25.

The *Swami* says, that *Iswara* created the *Vedas*, and also created many sects, some of which ought to follow one part of the sacred books, and some are bound to obey other portions of those writings. The *Vira Siva* ought to reject the greater part of the doctrine of the *Vedas* concerning *Curma*, or ceremonials; that is to say, the offerings of *Yagam*, or sacrifice, washing of the head, *Puja*, and the like. They are, however, permitted to follow part of the *Curma*, and to give *Dhana* and *Dharma*, two kinds of alms bestowed on religious men. These ought only to be given to the *Jangámas*; but many of the laity, who are of the division called *Samana*, have been persuaded heretically to give to the *Bráhmans* both kinds of alms. The *Vira Siva* reject altogether the *Bráhmans*, and never employ them at any ceremony to read prayers (*Mantrams*). The doctrine of the *Vedas*, which the *Sivabhactars* are bound to follow, is called *Gniana*, and consists in an acknowledgment of the gods, and in prayer. The *Vira Siva* follow in part only this doctrine, and confine their worship entirely to *Iswara*, his family and dependants; but the *Smana Siva* consider *Vishnu* and *Bráhma* as the same with *Iswara*, and worship them accordingly. These *Samana Siva* act as *Pujaris* in some temples, especially those of *Baswa*; but the *Swami* considers this as an abominable heresy.

The *Swami* says, that the eighteen *Puranas* were written by a very pious *Bráhman* named *Vyasa*; and that ten of them contain doctrines which he considers as sound. Next in authority to the *Vedas*, however, he considers twenty-eight *Agamas*, which contain an account of the doctrines taught by all sects, with warnings to avoid such as are heretical. Next in point of authority to these, is the *Baswa Purana*, written originally in the *Andray* language, by *Andray Cavi Somaderu* at the command of *Baswana*, who did not deliver any thing in writing. The work has been translated into the *Karnataca* language by *Bhíma Cavi*; and of this translation a copy, which the *Swami* gave me, has been delivered to the Bengal government. Many commentaries have been written by different learned *Jangamas*.

At each *Matam*, or college, is a chief *Sannyási*, who gives the *Upadesa* of this rank to several children that become his disciples and servants. These *Sannyásis* are of various ranks, and some of them are even permitted to marry. They must be all children of *Jangamas*. From among these *Sannyasis*, the chief *Guru* or *Swami* of the *Matam* chooses the most pious person; and, when he is apprehensive of the approach of death, gives him the *Upadesa* peculiar to his elevated rank, and delivers over to him his book and authority. The successor, so soon as master of the *Upadesa*, is considered as being the same with *Iswara*.

The *Guru* reprimands his followers for small faults, and possesses the power of excommunication for great crimes, such as eating animal food, or drinking spirituous liquors. He also possesses the

1801. March 25. power of reconciling a man to his wife, when she has committed adultery with a man of the caste. In such cases, he reprimands the woman, but will seldom permit the husband to turn her away. If the crime has been committed with a man of another caste, the *Guru* does not interfere to prevent divorce; but the husband is not under any necessity of parting with his wife; for on paying a fine for her purification, he may retain her.

The *Swami* says, that at certain periods the fourteen *Locums* of the world are destroyed by water. The *Baswa* stands in the middle of the deluge, which reaches only half way up his thighs, and all living creatures are saved by laying hold of his hair. The world is afterwards restored by *Iswara*, who lives in *Coilasu*. It is thither that after death the spirits of good men go, and are united to the substance of God, where they are exempted from all future change. There is no other heaven, such as *Moesha*, or *Sorghum*; but there are various purgatories, and hells, in which are punished the spirits of wicked men, either for a time, or for eternity, according to the nature of their trangressions. The spirits of men who have been neither bad nor good in the extreme are born again, some as men, others as animals; on which account, except in battle, the *Siva-bhactars* kill no animal. The crime of the premeditated death of an insect is quite the same with that of a man, nor is a cow more sacred than any other animal.

Commerce. Having assembled the principal merchants, they say, that since the time of the *Rájás* and of *Hyder*, owing to a removal of the court, and of extensive public works, the trade of the place has greatly diminished. It never was the seat of private manufactures; but still has a considerable trade, and is the residence of several wealthy merchants, who export the produce of the country. This consists of pepper, *Betel-nut*, sandal wood, and cardamoms. The merchants cannot state the quantity of any of these articles exported, either now, or at any former period. They say, that advances to the cultivators are seldom made; but, when the owner of a plantation takes advances six months before crop-time, he gets one half of the value of the estimated produce. The price of the commodity is not fixed, but it is taken at the common market-price at the time of delivery, deducting ten *per cent.* for the money advanced. The greater part of the produce is, however, bought up for ready money, immediately after crop season, and more than one half of it is purchased by merchants of the *Marattah* territory, or other distant countries; some of whom come hither in person, and others employ agents. Every merchant, whether native or foreign, has certain families with whom he commonly deals; and at the proper seasons he goes round to their houses, and collects the produce of their farms. Fairs or markets are not in use.

With the *Marattah* states. The *Marattah* merchants purchase pepper, cardamoms, and sandal: the *Betel* of this place, being cut, is not fit for their purpose. They bring for sale a great variety of cloths, thread, and cotton-

wool, most of which are again exported from hence. They also bring wheat, *Callay (Cicer arietinum)*, and *Danya*, a carminative seed like anise. 1801. March 25.

The merchants of *Mangalore*, and other places below the western *Ghats*, take from hence pepper, wheat, *Callay*, *Danya*, tamarinds, capsicum, cotton-wool, cotton-thread, *Goni* (cloth made of the *Crotolaria juncea*), cotton-cloth, blankets, iron, iron-work, and steel. They bring up salt, rice, *Horse-gram* (*Dolichos biflorus*), coco-nuts, oil, turmeric, and sandal-wood. With *Tulava*.

From the ceded provinces south of the *Krishna*, the merchants import cotton-cloths, and take back *Betel-nut*, pepper, and cardamoms. With the ceded provinces

From the *Chatrakal* principality are imported buffaloes, sheep, blankets, *Ghee* (boiled butter), and tobacco. With *Chatrakal*.

From *Gubi*, *Sira*, *Bangalore*, &c. are brought cotton cloths, tobacco, blankets, *Goni*, sheep, steel, and iron. The exports to all these places are pepper, *Betel-nut*, and cardamoms. With *Bangalore*.

Merchants from the dominions of *Arcot*, and those of the Company below the eastern *Ghats*, bring cotton cloth, with European and Chinese goods; and take back *Betel-nut* and pepper. The merchants say, that three-quarters of the whole produce are purchased with ready money; and the imports brought are equal only to the amount of the remainder. With *Arcot*.

The pepper of *Nagara* is here reckoned better than that of the sea-coast; and a *Parsi* merchant says, that it sells higher at *Bombay* than the pepper of *Malabar*. The average price here is 23 *Ikeri Pagodas* for every *Niza* (*Nidge*, of vulgar English) of 21 *Maunds*, each weighing 40 of the *Cucha Seers* of *Mangalore*, that is used for *Jagory*; so that the *Niza* should weigh 515½ lb., and sells for 92 *Rupees*. The carriage to *Mangalore* is one *Rupee* a *Maund*, making the *Niza* there worth 113 *Rupees*. The Company's *Candy* of 600 lb. would therefore cost 131½ *Rupees*, beside the charage of merchandize. Pepper.

The roads being bad, most of the goods are carried between this and *Mangalore* by porters. A man's hire between the two places is 3 *Rupees*, or 6*s*.; and he carries 3 *Maunds*, or 73½ lb. To the country toward the east and north, all goods are sent on oxen, as back loads, each carrying 8 *Maunds*, or 196½ lb. For each load the hire is 4 *Rupees* for 10 *Gavadas*, or days journies; the *Gavada* being computed at four *Sultany* cosses, or *Hardaries*, or at about 14½ British miles; so that the carriage of one hundred-weight costs almost 1*d*. a mile. Carriage.

The most important article of export from *Nagara* is *Betel-nut*, which is fit for the consumption of all the country to the eastward as far as *Madras*. The merchants cannot state the quantity. In *Tippo's* reign the merchants were afraid to purchase, knowing that obstacles would be put in their way. The whole, therefore, fell into the hands of the dependants of the *Asophs*, at a low price, and was exported on their account to *Seringapatam*, *Bangalore*, and Betel-nut.

1801. March 25. other cities in the *Sultan's* dominions; for the trade with foreign countries was prohibited. Owing to this, the cultivation was diminished; but the merchants think that this foolish plan had not continued so long as to occasion the loss of many of the trees; but that their produce was only diminished from a want of due cultivation. This year, all due encouragement having been given, it is expected that the produce will equal what it did at any former period. The price just now is higher than it was in *Hyder's* government, and amounts to 23 *Pagodas* a *Niza*, or *Candy*.

Cardamoms. It is evident from the considerable exportation of cardamoms from hence, all of which are the produce of *Coorg*, that what was stated at *Tellichery* as the amount of cardamoms reared in that country, is applicable only to the quantity sent down to *Malabar*. I have reason to believe, that a much greater quantity comes through the *Mysore Rájá's* territories, although I received no proper account of the specific quantity.

Grain measure. The grain measure in every village is different; and even in *Nagara*, that which the cultivators use is different from that by which grain is sold in the market. The *Sida*, or *Cucha Seer* of $20\frac{7}{10}$ cubical inches, is however the foundation of both.

The *Colaga* of the farmers contains $183\frac{3}{10}$ cubical inches. The *Candaca* of 20 *Colagas* is, therefore, equal to nearly $1\frac{7}{10}$ bushel. The market measure is a third larger.

Climate and weather. The climate here is nearly the same with that of *Sudha*. In the day-time the winds, at present, are pretty strong from the westward. The same plants that one month ago were in flower, when I was at *Kunda-pura* in the same latitude, are now coming into flower here; the difference of elevation making this climate a month later than that of the sea-coast. It is remarkable, that in many parts of India, during March and April, there are on shore strong winds blowing directly from the sea; while in the offing it is a perfect calm. Thus in *Bengal* there are, at that season, very strong southerly winds; while in the bay calms prevail until May or June. On the coast of *Malabar*, the south-west monsoon does not commence blowing with strength until the beginning of the rainy season; but on shore there are strong westerly winds from about the vernal equinox.

Low lands. The ground levelled for the cultivation of wet crops is here called *Gudday*, and is not subdivided into different kinds. The bottoms of vallies only are levelled, and are chiefly watered by the rain; but there are also some small reservoirs, from which a few days supply can be obtained in the rainy season, when there happens to be no fall for eight or ten days. For the same purpose, the water of some rivulets is turned into channels by dams; but irrigation is much neglected; and although in many places the rivulets are perennial, the former do not endeavour to take two crops in one year. The only crops taken from watered ground are rice and sugar-cane.

In order to give time to the cultivators, part of the rice is sown dry seed, and part is transplanted; the seasons for these two modes of cultivation being different. Every kind of rice that is sown here takes six months to grow; and they are of less variety than usual, namely, *Billy Battu*, or *Heggai*, and *Jolaghena*, which may be cultivated both ways; and *Honasena*, or *Kempa*, which can be sown only as dry-seed.

1801. March 25. Different kinds of rice.

The *Bara-butta* cultivation is conducted as follows. In the course of the five months following the winter solstice, the field gets four single ploughings. In the second month after the vernal equinox, it is manured with leaf dung, and ploughed once. After the next rain, the seed is mixed with dry cow-dung, sown broad-caste, and covered by the implement called *Coradu*, which differs from that of *Banawási* in having its section composed of three sides of a square, as in Plate XXIX. Fig. 78, in place of being a segment of a circle. A month after sowing, when the young rice is about four inches high, the field is turned over with a small plough, to kill the grass and to destroy part of the young corn, which is always sown too thick. After this, the field is again smoothed with the same implement, and harrowed with a bunch of thorns, as described at *Banawasi*. In the second month after the summer solstice, all the banks are repaired, to retain the water on the fields, which are then ploughed again, and smoothed with the implement called *Aligena Coradu* (Pale XXIX. Fig. 77.). A large rake, called *Halacu*, is then drawn by the hand over the field, to remove the weeds. In the month preceding the autumnal equinox, the weeds are removed by the hand. In the two months preceding the shortest day, the crop is ripe. It is cut close by the ground, and for four days is allowed to lie loose on the field. It is then stacked in heaps, with the ears inward, but without having been bound up in sheaves. In the course of three months, it is trampled out by oxen. The grain with the husk is preserved in store-houses, or straw bags, and is only made into rice as it may be wanted for immediate use.

Dry-seed, or *Bara-butta* cultivation.

The process for transplanted rice, called here *Nitty*, is as follows. In order to raise the seedlings, in the course of fifteen or twenty days during the month following the vernal equinox, a plot is inundated, and ploughed four times. It is then manured with any kind of fresh leaves, and with the dung made by cattle that have been littered with dried leaves. These are ploughed down, and the mud is smoothed, first with the *Noli* (Plate XXIX. Fig. 79.), and afterwards by the *Mara*, which is a square log of timber yoked in the same manner. The field is then drained so that three inches of water only remain. In any of the three months between the vernal equinox and the summer solstice, the seed is sown broad-cast. As this is the dry season, the seedling plot must be very low, so as to receive a supply of water from some rivulet. On the fifth day after the seed has been sown, the whole water is allowed to drain from the plot; and for three days this is kept dry, after which it is con-

Nitty, or transplanted cultivation.

1801. March 25. stantly inundated, till the seedlings are fit for transplantion. The field, into which they are to be removed, is inundated during the two months following the summer solstice, and in the course of three days during that period is ploughed four times. It is then manured, in the same manner as the plot was; and afterwards, in the course of two or three days, it is ploughed again three times. The mud is then smoothed with the *Noli*, above mentioned; and the water having been let off to the depth of three inches, the seedlings are transplanted into the field, which must be always kept under water; and a month after it has been planted, the weeds must be removed by the hand. The harvest is in the month preceding the winter solstice.

Produce. All the fields are capable of both modes of cultivation. The transplanting is reckoned most troublesome, and least productive, and requires most seed. A *Candaca* of land is an extent, that in the transplanting cultivation requires one *Candaca* of seed; in dry-seed cultivation, it requires only fifteen *Colagas*. The produce of all the three kinds of rice is nearly the same, only the *Heggai* gives rather most. Of this grain a *Candaca* of land of the first quality, cultivated by transplanting, produces eleven or twelve *Candacas*; land of the second quality produces eight *Candacas*; and land of the third quality produces six *Candacas*. The same ground, cultivated with dry-seed, would produce from one half a *Candaca* to one *Candaca* more.

Seed and produce for an acre. Having taken the *Shanaboga*, or accomptant, and the farmers who gave me the foregoing account, to a man's fields, who was rated in the public books as possessed of fourteen a*nd*a*cas* of land, I found that they contained 308,024 square feet, or that the *Candacas* was equal nearly to 22,000 square feet; so that the seed required for one acre, in the transplanted cultivation, would at this rate be $3\frac{376}{1000}$ bushels, which in Indian farming appears to be an excessive quantity. The owner would give no account of the quantity actually sown, nor of the usual produce; and I observed some contigious plots, which he called *Ragy* land, and which of course paid no land-tax: but they appeared to have been cultivated with rice, and there was no observable difference between their soil or situation, and those of the neighbouring plots of *Gudday* land. The accomptant pretended ignorance; but from circumstances I am inclined to believe, that there was a collusion between him and the farmer to impose upon the government. At present, from the confused manner in which all native accompts are kept, this is too much in the accomptant's power.

I afterwards sent to discover some farmer who would be more communicative, and at length found a respectable looking *Candaca*, who declared his willingness to tell me the real quantity of seed required to sow his fields and the quantity that he usually reaped from them. I first measured two plots, each said to require one *Colaga* in the transplanted cultivation, and two thirds of a *Colaga*

when sown with dry-seed; the produce in both cases was stated 1801.
to be one *Candaca* and a half; that is, 30 seeds in the former, and March 25.
45 in the latter. The first plot measured 3836 square feet; the second 4131; average 3983. At this rate, the *Candaca* sowing on a good soil is 79,660 square feet; and the acre in the transplanted cultivation requires $\frac{7323}{10000}$ parts of a bushel of seed; and in the dry-seed $\frac{6215}{10000}$ of a bushel. The produce in both cases is 29 bushels. I then measured $1\frac{2}{9}$ *Colaga* of poor land, which proportionably requires more seed than that of a good quality. I found, that it contained 2880 square feet; so that the *Candaca* of poor land contains nearly 47,127 square feet. This plot produces one *Candaca*, and consequently about $16\frac{36}{100}$ seeds; and an acre at this rate would require $1\frac{576}{1000}$ bushel of seed, and would produce $25\frac{79}{100}$ bushels. From this it would appear, that a *Canduca* of land is not a measure of definite extent. I think that this man spoke the truth.

Sugar cane. The same people who gave me the account of the cultivation of rice say, that the sugar-cane cultivated here is the *Maracabo*, or stick-cane. The ground fit for it is that which has a supply of water in the dry season. Any soil will do, but a red earth is reckoned the best. In the month preceding the vernal equinox, they plough four times; and then throughout the field, at the distance of one cubit and a half, they form with the hoe trenches one cubit wide, and one span deep. They then cover the field with straw, dry grass, and leaves, and burn them to serve as a manure. The soil in the bottom of the trenches is afterwards loosened with a hoe; and a man, with his hand, opens up the loose earth, puts in a little dung, and upon this places horizontally, and parallel to the sides of the trench, cuttings of the cane, each containing four or five joints. These he covers with a little dung and earth. The cuttings are placed in one row, in each bed, the end of the one being close to that of another. Once a day, for a month, the canes must be watered with a pot; the young plants are then about a cubit high; and, the earth round them having been previously loosened with a sharp pointed stick, a little dung should be given to their roots. After this, the ridges are thrown down, and the earth is collected toward the rows of young cane, which by this means are placed on ridges, with a trench intervening between every two rows. Until the rains commence, these trenches must every other day be filled with water. In the month preceding the autumnal equinox, in order to prevent them from being eaten by the jackalls and rats (*Bandicotes*), the canes are tied up in bundles of from five to ten, and each of these is surrounded by a series of straw rope. In ten months they are fit for cutting, and require no farther trouble. The crop season lasts one month. Five *Colagas* of land, or about $\frac{457}{1000}$ parts of an acre, form what is considered as a large field of sugar-cane, and will produce one *Maund* and a half of *Jagory*, each *Maund* containing 40 *Seers* of 24 *Dudus* weight. At this rate, an acre of cane would

1801. March 25. produce only about 80½ lb.; but these people do not state the produce of their rice land at more than a third of the truth; and respecting the sugar, they fall into at least an equal fault. Their mill consists of three cylinders moving by a perpetual screw, and turned by a man with a capstan bar, which is fixed to the cylinder in the centre. No addition is made to the juice when it is boiled into *Jagory*, which is done in flat iron boilers. The whole apparatus is extremely rude. On the second year a crop of *Ratoons* is taken, on the third year the roots are dug up, and the field is again planted with cane; so that it is never reinvigorated by a succession of crops. If a sugar-cane garden be to be converted into a rice field, it is allowed a year's fallow before the rice is sown.

Dry grains. On the lower part of the hills bordering on the rice grounds, are some small plots of land called *Hakelu*, or *Mackey*, which are cultivated for dry grains. The whole is of a small extent, and of a bad quality: the *Ricinus*, for instance, does not grow more than two feet high. The grains cultivated on these fields are *Udu* (or *Phaseolus minimoo,* Roxb.), *Huts' Ellu* (*Verbesina sativa*, Roxb.), *Huruli* (*Ricinus Palma christi*), *Harulu* (*Dolichos biflorus*), *Ragy* (*Cynosurus corocanus*).

Plantations. The garden cultivation is here of great importance, and produces about one-third of the whole revenue. Much of it is conducted by *Haiga Bráhmans*; but they have not, as in *Sudha*, the exclusive possession. The most favourable situation is the head of a valley, where the two hills approach each other. By raising a bank from hill to hill, a tank is formed at the upper extremity; and along the declivity of each hill a canal is made from whence all the intermediate ground on the slopes, and in the valley below, can be supplied with water, and is planted for a garden. At the junction of the hills, or lowest part of the valley, the water from both sides is again collected, and carried down to where the valley is wide, and is cultivated with rice. A western exposure is reckoned very prejudicial; but I see some very thriving gardens which face the setting sun. They are sheltered from its withering influence by tall groves of forest trees. In some cool places, where the water is near the surface, the trees grow without irrigation; but then they require a great quantity of dung, and do not produce much fruit. Gardens are also made on plains, where a tank or canal affords a supply of water. These thrive very well. The *Cagadali* soil is here likewise preferred to all others.

The seed of the *Areca* is managed in the same manner as at *Sersi*. In the month preceding the autumnal equinox of the second year, the young plants are removed into another nursery, where they are planted a cubit distant, and manured with *Nelli* (*Phyllanthus emblica*) leaves and dung. This nursery must be kept clear of weeds manured twice a year, and in the dry season should receive water once in eight days. The seedlings remain in it two years, when

they are fit for transplantation. The gardens are formed as at *Sersi*; but when the *Arecas* are three years old, they are removed into the garden, planted close to the drains for letting off the water, and remain there two years, when they are finally placed in the spots where they are to grow. Once in twenty or thirty years only the watering channels are filled up with fresh earth, and then are not allowed water. During that year, the garden is kept moist by occasionally filling the drains. The water in these is, however, reckoned very prejudicial, and is never thrown upon the beds. Once in two years the garden is dug near the trees, and manured. The manure is dung, above which are placed the leafy twigs of all kinds of trees. When an *Areca* dies, a new one is planted in its stead; so that in an old garden there are trees of all ages. On this account, although a *Candaca* of land will plant 300 trees, in the books of revenue these are only rated as 100 taxable *Arecas*. When the trees are sixteen years old they are employed to support pepper vines. Here few or no cardamoms are raised. In some gardens there are a few plants, but they are not productive. After having been boiled, the *Betel-nuts* are cut into pieces. According to the report of the cultivators, a garden of a thousand rated trees in a good soil produces twenty-five *Maunds* of prepared *Betel-nut*, each *Maund* containing 60 *Seers*, of 24 *Dudus* weight. The pepper of such a garden will be four *Maunds* of the same weight. The extent of this garden is about 796,600 square feet, or about 18¼ acres. Its produce of *Betel-nut* weighs 920½ lb. worth 14*l.* 9*s.* 6*d.*; and of pepper 117 lb. worth 19*s.* 4¼*d.* A garden rated at two thousand trees is reckoned a good one; any thing less is small. Five thousand *Arecas* constitute a very great garden. Many proprietors of gardens have no rice ground. For dung, they must keep cows, and female buffaloes; but this is far from being a charge against the garden, which in the dry season supplies the cattle abundantly with grass, and in the rainy season they pasture on the hills without cost to the owner, who sells the males which he rears. Four men can work a garden of two thousand rated trees, and collect the fruit and pepper. In an ordinary situation, to bring such a garden to perfection will cost about 1000 *Pagodas*, or 403*l.* 8*s.* 11½*d.*, besides 100 *Pagodas* for the tank; but of this the government advances one half. The only return, until the garden becomes productive, is from the plantains. The cultivators say, that they never take advances for the produce of their gardens, but sell for ready money when it is fit for market.

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Tenures of corn land.

The fields here are called the property of the Government; but the government cannot legally dispossess any farmer of his lands so long as he pays the rent, which is also considered as fixed. The *Gudday*, or rice ground, only is taxed; and each farmer has annexed to this a portion of *Mackey*, or dry-field. The whole of this is of little value, and pays no tax; but it gives room for evil practices; what is really *Gudday*, being sometimes, by the connivance of the

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accomptants, called *Mackey*. The pasture land is common. The farmer can neither sell his land, nor let it on mortgage. If he be not able to pay his rent, he goes away; but, if either he or his descendants recover stock enough, they may return, and claim their heritage, and any new occupant would be obliged to relinquish the property. The rent is paid in money, according to a valuation made by *Sivuppa*, of the *Kilidi* family; and for each *Candaca* of ground, according to its quality, amounts to from 3 to 10 *Ikeri Fanams*. Allowing that the land of the *Gauda* of veracity was of the best quality, this rent will amount to less than one-sixth of the produce, 10 *Fanams* being worth almost 6*s*. 3*d*., and 29 *Candacas* of rough rice, at one-sixth of an *Ikeri Pagoda*, the usual price, being worth nearly 1*l*. 18*s*. 11½*d*. Upon this valuation, the princess *Viru Magi* laid a *per centage*, or *Puggaday Putti*, of one-fourth, making the rent of the *Candaca* of the best land 7*s*. 9¼*d*., or nearly one-fifth of the produce. To this no addition has since been made; but some new taxes were imposed both by *Hyder* and *Tippoo*. The former, however, put a stop to certain exactions that had formerly been levied by the revenue officers; so that the people, on the whole, were not higher taxed than by their native princes. The taxes imposed by *Tippoo* have been repealed, and the revenue put on the same footing as in *Hyder's* time, whose example *Purnea* seems most judiciously to follow.

Tenures of plantations.

The plantations of *Areca* can be sold or mortgaged; on which account they are looked upon as more the property of the cultivators, than the rice fields are; but this is a fallacy; for a rice field is in fact the cultivator's unalienably. If a cultivator get into debt, he must sell his garden to satisfy his creditors; but he may relinquish his rice-land for a time, and, whenever his creditors cease from molesting him, he may again obtain possession. The mortgage here is exactly similar to the wadset of Scotland; the lender of the money taking the use of the estate for the interest of his money. The tax on plantations varies, according to the nature of the soil, from 8 to 24 *Canter'-Raya Pagodas* for every thousand rateable trees. This is from 2*l*. 9*s*. 11*d*. to 7*l*. 9*s*. 9½*d*. for about 18¼ acres planted; but conjoined with this is always much ground for the house, tank, hills, &c. &c. According to the report of the cultivators, the produce, in a good soil, of 1000 rateable trees is worth 15*l*. 8*s*. 10½*d*.; so that the cultivator would at this rate pay about one half of the produce. A garden usually mortgages for from two to three times the amount of the tax, and sells out-right for twice the amount of the mortgage. The cultivators probably detracted as much from the real produce of the gardens, as they did from that of the rice land.

Price of labour, and condition of slaves.

Most of the cultivation is carried on by the families of the cultivators: there are very few hired servants; but a good many slaves, by whom on the farms of the *Bráhmans* all the ploughing

is performed. A slave gets annually $1\frac{1}{2}$ *Rupee* for a blanket; 3 *Rupees* worth of cotton cloth; $\frac{1}{4}$ *Rupee* for a handkerchief; 6 *Candacas* of rough rice, worth 4 *Rupees*, to procure salt, tamarinds, &c.; and daily $1\frac{1}{2}$ *Colaga* of rough rice, or annually $27\frac{1}{2}$ *Candacas* (or almost 49 bushels), worth 1*l.* 16*s.* $11\frac{3}{4}$*d.*; add the annual allowances 17*s.* $7\frac{1}{4}$*d.*, the total expenses of maintaining a male slave one year is 2*l.* 14*s.* $7\frac{1}{4}$*d.* A woman slave gets as follows: 365 *Colagas* of rough rice, one daily, and 3 *Candacas* at harvest; in all, $21\frac{1}{4}$ *Candacas*, or $36\frac{1}{4}$ bushels, worth $14\frac{3}{16}$ *Rupees*; 2 *Rupees* worth of cloth, and $\frac{1}{4}$ *Rupee* for a jacket; in all, nearly $16\frac{1}{2}$ *Rupees* or 1*l.* 13*s.* 2*d.* The marriage of a slave costs 10 *Pagodas*, or about four guineas. The wife belongs to the husband's master. A master cannot hinder his slave girl from marrying the slave of another man, nor does he get any price for her. The widow and children, after a slave's death, continue with his master. If a slave has no children by his first wife, he is allowed to take another. 1801. March 25.

The same people who gave me an account of the cultivation of rice say, that a man who has ten ploughs is reckoned a very great farmer; and a man who has three ploughs is thought to have a good stock. These three ploughs require four men, and six oxen. They seldom have occasion to hire additional labourers at seed time or harvest, one man helping another on such occasions. The annual expense of the servants amounts to 17*l.* 11*s.* 1*d.* With three ploughs they can only cultivate 15 *Candacas* of land. The produce of these, supposing them of the best quality, would be only worth 30*l.*, and the rent is 5*l.* 16*s.* $10\frac{1}{4}$*d.*; so that the farmer, for his trouble and stock, would have only 6*l.* 12*s.* $0\frac{3}{4}$*d.*, which is evidently too little. From the number of people employed to manage the three ploughs, it is indeed probable, that, besides the fifteen *Candacas* of rice-land, the same stock cultivates also a plantation of *Arecas*. Stock and size of farms.

The cattle here, like those of the country below the *Ghats*, are remarkably small. No large ones are ever bought, as they do not live long. About an equal number of oxen and buffaloes are employed for the plough. The country breeds more than are required for its cultivation, and a considerable surplus is annually exported to the sea-coast. In this country there are neither sheep nor asses. All the chief officers of revenue keep brood mares, considerably better than the common Indian ponies, or *Tatoos*. The horses, in the present state of the breed, would not answer for our cavalry; but it might, no doubt, be improved, by sending into the province a few good stallions. Cattle.

The cattle are kept all the year in the house. In the rainy season, they are littered with green leaves. Fresh litter is every day added, but the stable is cleaned only once a week. This dung is collected in a pit, and called *Sopina Gobra*, or leaf manure. During the two months preceding and the two following the winter solstice, the cattle are littered with hill grass, and cleaned once in four days. This Treatment of the cattle and manure.

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dung also is collected in a separate pit, and is called *Hindu*, or *Soday Gobra*. In the hot and dry season the cattle are littered with dry leaves, and cleaned once in four days; the dung is generally spread upon the hollow roads leading into the villages, where it is trodden upon by man and beast, and is thereby much improved; but it renders the villages quite loathsome. This is called *Duraghina Gobra*. The grass (*Hulu*) dung is never used for rice land; but all the three are indiscriminately used for gardens.

CHAPTER XVIII.

JOURNEY FROM HYDER-NAGARA TO HERIURU, THROUGH THE PRINCIPALITIES OF IKERI AND CHATRAKAL.

MARCH 29th.—I went to *Cowldurga*, which is said to be four cosses from *Nagara*; but the stage proved very long, as the gate was at least four miles from where my tents had been pitched. The road the whole way is exceedingly rough and hilly. The hills are all covered with woods, most of which produce the wild pepper vine; but these are quite neglected; and as they are not cultivated, although the village people collect a little pepper, they pay no revenue. The want of the stimulus of rent seems to produce the neglect. I passed through a good many narrow vallies fit for the cultivation of rice, several of which were entirely waste. All the streams of these vallies fall into the river of *Honawera*. 1801 March 29. Face of the country

The original name of *Cowldurga* was *Bhavana-giri*, and it is a place of great antiquity. A small fort is said to have been erected on the hill by *Dharma Raja*, or *Yudistara*, one of the five sons of *Pandu*, who governed India at the commencement of this *Yugam*, almost 5000 years ago. The works of this old fortress are said to be still distinguishable by their solidity, and the excellence of their structure. The fortifications were much enlarged, and improved into their present form by *Sedasiva Nayaka*, the founder of the *Kilidi* family. *Hyder* repaired it, and added a cavalier, which by the Mussulmans here is called a *battery*; and he then changed the name of the place into *Cowldurga*, a name which the natives have retained out of respect to *Hyder's* memory, although they laugh at the barbarity of its derivation; for *Cowl* is a Mussulman word, originally I believe Arabic, and signifies protection or encouragement, such as is given by a good government to the subject; and *Durga* is a *Karnataca* word, signifying a fort that is situated on a rock. *Tippoo*, with the usual zeal of a Mussulman, changed the Pagan names of almost every town in his dominions; but the names which he bestowed have already fallen into disuse, and in a few years will sink into oblivion. The hill on which *Cowldurga* stands is not very high; but, the walls being numerous and lofty, it looks better than most of the hill forts of *Karnata*, of which the buildings are hardly observable at a distance, being hidden among the immense rocks on which they are placed. It is now undergoing a complete repair, and *Cowldurga*, or *Bhavana-giri*

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is garrisoned by the troops of the *Mysore Raja*. The *Petta* stands at some distance, and contains about a hundred houses which for an Indian town are well built. In the government of the *Kilidi* family, it contained six or seven hundred houses; for it is a considerable thoroughfare, and well situated for trade. The road from *Hosso-Angady-ghat* divides into two branches at *Hyder-ghur*: the one goes by *Nagara*; and that way the trade of *Bangalore, Chatrakal,* and other places toward the north-east, passes; the other branch of the road passes through *Cowldurga,* and is that by which the trade of *Seringapatam* goes to *Canara*. *Hyder-ghur* is a pass fortified by a wall and gate. Near it there is no cultivation; and indeed near *Cowldurga* there is very little. As, however, the pass commands one of the principal entrances into *Karnata Desam,* it seems to deserve some attention.

March 30.
State of the country.

30th *March*.—I went four cosses to *Hodalla*. Near *Cowldurga,* the country is covered with thick forests. Farther on, the hills are tolerably well cleared, and the intermediate little vallies are as usual rice grounds. In fact, all this part of the country resembles entirely that below the western *Ghats*. The hills here, although apparently well fitted for this purpose, are never formed into terraces, as in *Malabar*. The gardens are not so numerous as near *Nagara,* and infinitely fewer than in *Malayala*. About half way, I passed through a village named *Arga,* which formerly was a large place. Its inhabitants were removed by *Hyder* to *Cowldurga,* and suffered much from the change of air; for *Arga* is in a clear open country, and *Cowldurga* is surrounded by hills and forests. East from *Arga* are two small rivulets, the *Gopinatha,* and *Kusawati*; which join, and then fall into the *Tunga*. The natives say, that at *Golagunjy-mani,* a hill near *Sringa-giri,* there is an image of *Narasingha,* the incarnation of *Vishnu,* whose head resembles that of a lion. This image is not larger than a man. From one eye comes a small stream, called the source of the *Netrawati,* which falls into the sea at *Mangalore*; another stream comes from his left tusk, and is the source of the *Tunga*: and a third stream, called the source of the *Bhadra,* comes from the right tusk of this image: These streams are about the thickness of a quill, and, having united for a little way, run down a rock, when they again separate; and each, being joined by various springs and rivulets, forms a river. I have heard a similar story at several places, both above and below the *Ghats*; and the account here given I took with care from a sensible person who has been on the spot; yet there is probably some gross mistake in it, most of the people here being willing to believe any thing extraordinary, even in perfect opposition to the evidence of their senses.

Hereditary
flute-player to
the king.

Hodalla contains seven or eight families, who are very inadequate to cultivate all the arable lands. It was formerly the residence of a family of *Polygars,* named *Coramar* and of *Telinga* extraction. They were hereditary flute-players to the kings of *Vijaya-nagara*. By the first chiefs of the family of *Kilidi* they were deprived of their autho-

rity, but were allowed certain lands free from taxes. The family is now extinct. 1801. March 30.

A man here is just now forming a garden that will plant 12000 *Betel-nut* trees, which will be rated in the public accompts as 4,000. The cost, before it comes to produce, according to estimate, will be 4000 *Ikeri Pagodas*, or 1611*l.* 15*s.* 11¾*d.* When the garden begins to produce, the *Amildars* (chief officers) of three districts (*Talucs*), three *Sheristadars* (accomptants of districts), and two principal cultivators from each of three neighbouring districts, will form a kind of jury, and fix the revenue according to the soil and local advantages; the *maximum* being 18 *Ikeri Pagodas*, and the *minimum* being 5 *Pagodas* for every thousand rateable trees. In every part of the country this is the practice. Plantations.

31st *March.*—I went to *Tuduru*. The stage seemed to be short, but it is called four cosses. The road passes near a village called *Maluru*, but on the whole way I did not see a house. By far the greater part of the country is covered with stunted woods; and as the roads generally follow the low hills, these hide from the view of the traveller the greater part of what is cultivated. March 31. State of the country.

On the banks of the *Tunga*, near *Maluru*, is a celebrated temple named *Mahisi*, which signifies *the female buffalo*. It is supposed to have been built by *Hanumanta*, who, unwilling to accompany *Rama* in his expedition against *Lanca*, assumed for concealment the form of this animal. At that time he built this temple, and dedicated it of course to *Vishnu*, his master. It is said to possess inscriptions on stone of great antiquity, of which the *Amildar* promised to send me copies. All that has come to hand, however, is one without a date, of which a copy has been given to the Bengal government. *Mahisi*, a temple built by *Hanumanta.*

At *Tuduru* there is no village, and only a few scattered houses. I pitched my tents at a ruinous *Jangama's Mata*, which stands on the left bank of the *Tunga*. The stream of this river never dries, but is not applied to irrigate the fields. In the morning there were two very heavy showers of rain from the eastward, with much thunder, and little wind. At this season usually, once in eight or ten days, similar rains are said to happen. The prevailing winds come from the west, and are strong and dry. Weather.

1st *April.*—I went four cosses to *Baikshavani Mata*. The road is near the left bank of the *Tunga*. After leaving the cultivated country near *Tuduru*, which is pretty extensive, I entered a forest of trees and *Bamboos*, almost equalling in stature those of the western *Ghats*. Here were many fine *Teak* trees, more indeed than I have ever seen in any one place. They might be of value, could they be floated down the *Tunga* to the *Krishna*, and so to the sea; which I think might probably be done by supporting the floats with *Bamboos*. The *Tunga* at all times contains water; but in the dry season the channel, being full of rocks, will not admit floats. In the rainy season the river swells prodigiously, and is said to be in most places eight or ten feet higher than the top of the rocks. Its stream is then April 1. *Teak* forests, and *Tunga* river.

1801. April 1.

exceedingly rapid and muddy, and filled with large trees swept away by the flood; while in some places rocks come very near the surface. These circumstances would, no doubt, render the navigation in boats very dangerous, but they do not seem to me likely to impede well-constructed floats of timber, strengthened and buoyed up by *Bamboos.* If this should be found practicable, I know of no place that would answer better, for rearing a *Teak* forest, than the banks of the *Tunga* near *Tuduru,* where close to the river there is much excellent soil, which is considered as useless. As there are already on the spot many fine *Teak* trees, all that would be required would be, to eradicate the trees of less value, which I look upon as a necessary step to procure any considerable quantity of *Teak* in a well regulated government. In the wilds of *America,* or the dominions of *Ava,* where a few inhabitants are buried in the recesses of an immense forest, a considerable supply of timber may without trouble be procured; but in a well cultivated country, without much pains bestowed on rearing the proper trees, it is in vain to think of supplying the extensive demands of the ship-builder.

Face of the country.

In this forest the road is in several places defended by fortifications; for, although not hilly, it is a pass called *Uluvadi.* These fortifications were erected by *Hyder,* with a view probably of stopping marauders. After leaving this pass, I came to an extensive plain of rice ground, in which stands *Manday Gudday,* a scattered town surrounding a ruinous mud fort. It formerly was considerably larger, but suffered much from *Purseram Bhow's* army, in the course of whose destructive route I have again come.

Manday Gudday.

Tundu flowers, a dye.

Near the town I observed many fine trees of the *Tundu,* or *Cedrella Tuna,* Roxb. MSS. Its flowers, as I have mentioned at *Bangalore,* are used for dyeing. It is said, that they are collected by Mussulmans, who gather them every morning as they fall from the tree, and afterwards dry them on mats exposed to the sun. The price at present is said to be so low, that none are collected.

Sandal.

East from the plain of *Manday Gudday,* I passed through a forest which contains much sandal-wood, but no *Teak.* Indeed I have never seen the two trees in the same place.

Face of the country.

On passing this forest, I came to an open country, in which is situated *Baikshavani Mata,* where there is no village; all the houses are scattered on the different farms, which is the usual custom through the principalities (*Raya's*) of *Sudha* and *Nagara,* as well as in the country below the western *Ghats.*

Sivabhactars.

The *Mata* belongs to the *Sivabhactar Jangamas,* one of whom still resides in it. The village is considered as his property, but he pays the usual taxes to government. He is dependent on the *Umblay Guru,* who lives near *Shiva-mogay.* None of these *Matas* seem to be older than the government of the *Kilidi Rajas.* Long before their accession, it is true, the greater part of the cultivators were *Sivabhactars,* and no doubt had among them many *Jangamas*; but they

were probably in too great poverty to be able to erect religious buildings of any consequence. 1801. April 1.

Want of people. The people here say, that if there were a sufficient number of cultivators the greater part of the woods might be cut, and the land, which these now occupy, might be converted into dry field; but at present about one-third of the rice land is unoccupied. It would not however appear, that the country was ever sufficiently populous to cultivate more than the rice lands, with a very little of the adjacent high ground, and a few small plantations. At this distance from the *Ghats*, both *Betel-nut* and sandal-wood become scarce. Great quantities of the latter grow in the low woods between *Hodalla* and *Tuduru*.

Weather. Here the quantity of rain also diminishes; and rice cannot be cultivated without small reservoirs, sufficient to contain a supply of water for two months after the cessation of the rains; for the rains last four months only; and all the kinds of rice that are cultivated here require six months to grow.

April 2. State of the country. 2d *April*.—I went a long stage, called five cosses, to *Shiva-mogay*. The first two cosses of this road are in a forest of very fine trees, many of which are *Teak*. On leaving this, I entered an open country extending very far to the eastward. The greater part of it seems to be fit for cultivation; but at present a want of inhabitants renders the greatest part of it a waste. One coss from the forest is *Gajunuru*, a fort and village on the left bank of the *Tunga*.

Battle of Simoga. On the plain between this and *Shiva-mogay* was fought a battle between *Purseram Bhow*, and *Mahomet Beza*, usually called the *Binky Nabob*, or burning Lord; as, from his activity, he was usually employed by the *Sultan* to lay waste any country that might be of use to his enemies. *Purseram* had advanced as far as *Fatah Petta*, hoping that the garrison of *Nagara* would run away, and leave him the spoil of the city; but as they preserved a countenance which he did not like, he marched toward his left, in order to join Lord Cornwallis before *Seringapatam*. At this place he was met by *Mahomet Beza*, who had 5000 horse, and 10,000 foot, with eight guns. An engagement took place, in which the Mussulman was defeated, and compelled to retire to *Nagara* with the loss of four or five hundred men. This is the account of the natives of *Shiva-mogay*, little inclined to favour either party. From the field of battle, *Purseram* advanced to *Shiva-mogay*, and after a siege of two days took the fort. His march, as usual, was marked by devastation, famine, and murder. The town at that time contained 6000 houses, the whole of which were destroyed; the women were ravished, and the handsomest carried entirely away. Such of the men as fell into the hands of the *Marattahs* were killed, and of those who escaped the sword a large proportion perished of hunger; every eatable thing having been swept away by those whom people in Europe are pleased to call the gentle *Hindus*. These ruffians did not even spare the *Kudali Swami*, who is the *Guru* of all the *Marattah Bráhmans*

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of the *Smartal* sect, and who is by them considered as an actual incarnation of the deity. His *Matam*, or college, was plundered and burnt; but this cost the *Peshaw* dear. The enraged *Swami* held out threats of instant excommunication, and was only pacified by a present of 400,000 *Rupees*. *Tippoo* had the satisfaction of taking one half of this sum, which was the assessment levied from the *Swami* on account of the *Nuzzur* that Lord Cornwallis exacted.

Charity of a great *Brahman*.

The *Swami* is said to have been of great use in the famine, and to have employed the utmost of his influence in collecting money to support the starving wretches. He daily fed 3000 *Bráhmans*, and other religious mendicants; for, according to the *Hindu* doctrine, it is the charity which is bestowed on religious men that chiefly procures favour in the eyes of the gods. In his distributions the *Swami* is said to have expended six *Lacs* of *Rupees*, or 60,441*l.* 13*s.* 4*d.*, most of which was collected in the *Marattah* states.

Shiva-mogay, or *Simogay*.

On the fall of *Seringapatam*, the unfortunate *Shiva-mogay* became a prey to *Dundia*, who remained in it fifteen days, and plundered the inhabitants very completely. Many of the neighbouring villages he burnt. On going away, he put a garrison in the fort, which was stormed by Colonel Stephenson, who hanged the commandant. The *Amildar* who gave me the foregoing account is said to have distinguished his courage on this occasion. The town now contains about 500 houses, and is increasing fast. Its proper name is disputed. In the public accompts it is called *Shiva-mogay*; but some *Bráhmans* of the place say, that its name is properly *Shimuggay* (*Simoga* of the English). This signifies sweet-pot. Such an absurd name is said to be owing to its having been the residence of one of the saints called *Rishis*, who lived entirely on the roots of grass, which he pounded in a pot, and called the mixture his *Shimuggay*. The whole time that the *Rishi* did not employ in preparing this simple diet was of course passed in prayer and other acts of devotion.

Navigation of the *Tunga*.

From *Mangalore Hyder* brought to *Shiva-mogay* many carpenters, and built a number of lighters of about eight tons burthen. They are strong, and flat-bottomed; but, as the greater part of them have been allowed to remain on the bank where they were built, I doubt not that they were found very useless. From the account of the river, which I have given, this will readily be believed; the attempt is however no impeachment on the sagacity of *Hyder*, who having been educated in a place remote from every kind of navigation, could have no idea of what boats could perform, nor of what obstacles would prevent their utility. The only object that could strike him was the immense advantage of carrying down the river the timber, and bulky produce of this country; from whence even the *Betel-nut* and the pepper require many cattle to go loaded, that must again return empty. To attempt dragging anything up such a torrent as the *Tunga*, would be vain; but, after having seen the boats, and known that some of them have been actually navigated down the river, I have no doubt of its being practicable to carry

down floats; and on these perhaps many bulky articles of commerce might be transported. 1801. April 2.

Manufactures.

In this neighbourhood the manufacture of cotton cloths begins; for none is made to the westward. In all the villages of this district (*Taluc*), very coarse cloths, for country use, are made by the *Whalliaru*, and by a class of the *Sivabhactars*, who are called *Bily Muggas*.

Grain measure.

Every village has different grain measures. Those of the *Kasba*, or chief town of the district (*Taluc*), are as follows:

First, Those used by the farmers.

90½ cubical inches are equal to 1 *Mana*, or *Seer*.

16 *Manas* make 1 *Colaga*.

20 *Colagas* make 1 *Candaca*, which contains $13\frac{414}{1000}$ bushels.

Second, Those used in the *Bazar*, or market for retail:

18 *Sultany Seers* make 1 *Colaga*.

20 *Colagas* make 1 *Candaca*; which therefore, if the *Sultany Seer* were at the true standard, ought to contain $12\frac{495}{1000}$ bushels; but in fact the two *Candacas* are the same, and this measure is divided by the farmers into 320 *Manas*, and by the shopkeepers into 360 *Seers*.

In the open country round *Shiva-mogay*, according to the account of its intelligent and obliging *Amildar*, the hills and barren ground do not occupy more than a third of the surface. Near the river the great part of the arable lands are rice grounds; far from it the dry-field prevails. On the whole, the quantity of ground fit for the cultivation of rice is about equal to that fit for dry grains. Not above one-third of the whole arable land is now under cultivation, and the rice ground is more neglected than the dry field. This is not owing to rice being less profitable to the cultivator, but to the contrary cause; for the devastation of the *Marattahs* fell heaviest on the best parts of the country; while the inhabitants of the villages situated among the dry field were near the forests to make their escape.

Watered-lands.

The wet lands are in general of a light soil. Although the rains are less copious than at *Nagara*, so that artificial irrigation would be of great utility, little care has been taken with that branch of agriculture. The people here allege, that the plains are so small as to render the construction of reservoirs too expensive. This seems to be one of the usual excuses held out by indolence; as no where in *Karnata* have I seen so much level country. No dams have been made on the *Tunga*; and in fact its channel is so wide, and so deep under the level of the country, that they could be made only at a great expense; but then, I am persuaded, it would be found that they would irrigate a proportionably large extent of ground. The greater part of the rice is raised by the rain water alone, and of course there is only one crop; so that during six months the people are almost wholly idle. A few farmers have

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small reservoirs, which give a supply of water to the crop when the rains are less regular than usual; and where the reservoirs are somewhat larger, their water supplies in the hot season a few plantations of *Areca* and sugar-cane. The extent, however, of both these is so inconsiderable, as scarcely to deserve notice. The plantations of palm trees contain only coco-nuts and *Arecas*, without pepper; and their produce is of so bad a quality, that it will answer only for country consumption.

Rice.

The kinds of rice cultivated here are,

Sampigy Dala,	produce in a good crop	10 seeds.
Betta Candala	... ...	12 seeds.
Caimbutty,	... ...	9 seeds.
Sanabutty,	... ...	9 seeds.

All these require six months to grow. They are all large grained, except the *Sanabutty*, which sells five *per cent.* higher than the others. The lowest ground is used for the *Sanabutty*; the highest is used for the *Caimbutty*. The *Candaca* of land is the quantity supposed to require a *Candaca* of seed, and is quite indefinite in size; more and more seed being sown in proportion to the goodness of the soil. This seems agreeable to reason; the contrary was, however, at first asserted by the cultivators, and throughout the country is indeed a usual cry with that class of people; but I was cautioned by the *Amildar* not to credit such assertions. The produce of a good and that of a bad field, each of one *Candaca*, is nearly the same; but the good one, being much smaller, and requiring less expense of cultivation, can afford a higher rent. Accompanied by the *Amildar*, I measured a field of the poorest soil, said to require eight *Colagas* of seed, and found it to contain 1[illegible]2,084 square feet; so that the *Candaca* in such a soil would be 380,210 feet. The acre would therefore sow $1\frac{536}{1000}$ bushel. The produce of this field last year, which was a favourable season, was 5 *Candacas*, or $12\frac{1}{2}$ seeds, or $19\frac{1}{5}$ bushels an acre. In the preceding year the crop was bad, and produced only 3 *Candacas*, or $7\frac{1}{2}$ seeds, or $11\frac{52}{100}$ bushels an acre. This account I think is true, the *Amildar* being well informed, and apparently inclined to give me assistance. What the extent of a *Candaca* land of the two superior qualities is I did not attempt to ascertain: the people said it was much less.

The cultivation of all soils and all kinds of rice is the same, and the unprepared seed is sown by a drill. Immediately after harvest, the ground is once ploughed. When the rains commence, during the two months following the vernal equinox it is ploughed again twice, smoothed with the implement called *Coradu*, which is similar to that of *Banawasi* (Plate XXIX. Fig. 72), and then hoed twice with the *Heg Cuntay* (Plate XXVIII. Fig. 75), which is drawn by two oxen. This removes the grass; after which the clods are broken by drawing the *Coradu* twice over the field, which in some measure serves as a rolling-stone. The dung is then spread; and after the first good rain the seed is sown with the drill or *Curigy*, and

covered with the *Coradu*. At this season the rain comes in showers, between which are considerable intervals. On the third day after having been sown, the field is hoed with the *Heg Cuntay*, which here is called also *Cambutigay*. On the twentieth day, when the seedlings are nine inches high, the *Coradu* is used again; then the *Edday Cuntay* (Plate XXVIII, Fig. 76); then the *Coradu*, and finally the harrow which is made of a bunch of thorny *Bamboos*. On the thirtieth day, more grass having sprung, the *Edday Cuntay* is again used, the rows of young corn passing between the hoes; and this must be repeated as often as the grass springs. In the third month the water is confined, and then for the last time the *Edday Cuntay* must be used. The mud raised by this is smoothed by the *Coradu*; but in this operation, the same implement is called *Aravusi*. All these weedings are not sufficient, and the remaining grass must be removed by the hand and weeding-iron. The rice is cut with the straw, and for two days is allowed to lie loose on the field. It is then put in ricks, without having been bound in sheaves, and remains there until trodden, which may be done any time in the course of three months. It is always preserved in the husk, and when wanted for consumption is cleaned by a hand mill of the usual form, but made entirely of timber, which removes the outer husk; but the inner one, or bran, must be separated by beating in a mortar. Eight measures of clean rice, as usual in India, are equal in value to twenty of that which retains the husk. 1801. April 2.

In a few places, where there is a moist black soil, the rice-ground produces a second crop of *Callay* (*Cicer arietinum*), and of *Hessaru* (*Phaseolus mungo*). The seed for both is one fifth of the quantity of rice that is required to sow the field; and as the soil is rich, will probably be about half a bushel the acre. The *Callay* produces five seeds, and the *Hessaru* four. For the former, the field is ploughed once in the month preceding the winter solstice. The seed is dropt into the furrow after the plough, and in three months ripens without farther trouble; and this is no additional labour, as the field must at any rate have been ploughed. For the *Hessaru*, the field after the rice harvest must be ploughed twice. In the month following the shortest day, it must be watered from a reservoir, and smoothed with the implement called *Coradu*. As a mark for the sower, furrows are then drawn through the whole field, at the distance of four cubits; and the seed having been sown broadcast is covered by the plough. The field is then smoothed with the *Coradu*, and in four months the crop ripens. Second crop of pulse.

Near *Shiva-mogay* the cultivation of dry grains begins to be of importance. The following kinds are cultivated. Dry-field.

Ragy, or the *Cynosurus Corocanus*, with its concomitants *Avaray* (*Dolichos Lablab*), *Tovary* (*Cytisus Cajan*), *Punday* (*Hibisbus Canabinus*, Lin.), and *Udu* (*Phaseolus Minimoo*, Roxb. MSS.)

Huruli, or *Dolichos biflorus*.

Shamay, or *Panicum miliare*, Lamarck.

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Navonay, or *Panicum italicum*.
Harica, *Paspalum frumentaceum*, Roxb, MSS.
Barugu, *Panicum miliaceum*.
Harulu, *Ricinus palma christi*.
Huts' Ellu, or *Verbesina sativa*, Roxb., MSS.
Wull' Ellu, or *Sesamum*.
Udu, or *Phaseolus minimoo*, Roxb., by itself.
Jola, or *Holcus sorghum*.

The only ones that are raised in a quantity deserving much attention, are the *Ragy* with its concomitants, and the *Huruli*. About three-fourths of the field are sown with the first crop, and one-fourth with the last mentioned. In giving an account of the present state of the country, the others may be altogether neglected. They might, however, deserve much attention from any person who wished to try experiments for the improvement of agriculture. The best soil is reserved for *Ragy*. The *Huruli* is sown on poor soils, or on the *Ragy* fields when, owing to a want of rain, the crop of that grain has failed. Here the crop of *Huruli* is not thought to injure the following one of *Ragy*, which is contrary to the opinion that is commonly received in most parts of the country. In the present system of *Hindu* agriculture, however, very many opinions must be commonly held, without any fair trial having been made to ascertain how far they are well founded. Both *Ragy* and *Huruli* fields are sown every year without rest. The *Huruli* is a very uncertain crop; for, by either too much or too little rain it is spoiled; so that, although very high priced, it gives little profit.

Ragy.

At *Shiva-mogay* there is only one kind of *Ragy*, and one mode of cultivation. In the month following the summer solstice, the field is ploughed twice, and smoothed with the *Coradu*. It is then ploughed and smoothed again, and hoed with the *Heg Cuntay*. After this, it is harrowed with the rake drawn by oxen. Eight days afterwards, it is again hoed with the *Heg Cuntay*, and is allowed to rest fifteen days. Then throughout the field furrows are drawn at the distance of about seven inches, and into these the *Ragy-seed*, mixed with dung, is placed very thin with the hand; a small quantity being dropped at about every ten inches. In every seventh furrow are put the seeds of *Avaray*, *Tovary*, and *Punday* intermixed, or of *Udu* by itself. The field is then smoothed with the *Coradu*, and with the bunch of prickly *Bamboos*. In eight days, when the young plants have come up, the spaces between the rows are hoed with the *Edday Cuntay* (Plate XXVIII. Fig. 76), and again smoothed with the *Coradu* and bunch of twigs. These operations must be repeated twice, with an interval of eight days between each time. After the third the field is harrowed with the rake drawn by oxen, and after another interval of eight days this is again repeated. In the fourth month, the weeds are removed by the hand: in five months the crop is ripe. It is tied up in sheaves; and as the rainy season is not then quite over it is dried with some difficulty. When the *Ragy* is in flower, the crop is

apt to be spoiled by heavy rain; which may be a reason why it does 1801. not thrive well to the westward. The produce of *Ragy* in a good crop April 2. is reckoned to be ten seeds, which, unless the seed is sown much thicker than usual, is very poor. This is probably in some measure the case, as at *Shiva-mogay* this crop is allowed little or no manure; but the people who gave me the account certainly concealed the quantity of produce, as the rent paid for the *Ragy-land* amounts to the value of almost ten seeds. All the dry-field being at a distance from the town, I had no opportunity of ascertaining the extent of a *Colaga* of *Ragy-land*.

Huruli. For *Huruli*, the field, having been previously manured, is ploughed three times during the month which precedes the autumnal equinox, at the interval each time of three days. The seed is sown broad-cast, and covered with the *Coradu*. It ripens in four months; four seeds are reckoned a good crop, and three a middling one.

Wages and labour. The greater part of the cultivation is carried on by the tenants, and their own families. In agriculture, some hired servants, but no slaves, are employed. The yearly wages for a labouring servant are from four to five *Ikeri Pagodas*, one blanket, one pair of shoes, and a handkerchief, amounting in all to about two guineas. He finds his house and victuals. In weeding time, women are hired, at four *Seers* of rough rice a day. A man, when hired by the day, gets five *Seers*. These wages are very high, when it is considered that no servant works here more than six hours. The labourers gave me the following account of the manner in which they pass their time. About eight o'clock of our day they rise from bed, and smoke tobacco; they perform their evacuations, and ablutions; and having been purified, they worship the gods. They then eat, an operation in which two hours are expended. They then rest themselves half an hour, when they proceed to the field, and work six hours. On their return, they again pray, and take little of any cold victuals that they have ready. They then look after the cattle, and give them water and fodder. The labour of the day is now over; and the workman, having again washed and prayed, takes his supper, and about seven o'clock goes to bed, where he remains thirteen hours. This is their employment during the six months of toil. In the remaining half of the year, little cultivation being carried on, they repair their houses, lay in a stock of firewood, carry out dung, and do other little jobs about the farm. Masters, of course, work still less.

Tenures. In this vicinity there are two kinds of tenure. The first comprehends gardens, and lands formerly granted in *Enam*. Both of these the occupants have a right to sell. *Hyder* laid half the usual rent upon the lands held by *Enam*, and this tax was increased by the *Sultan*; but *Purnea* has again reduced it to *Hyder's* assessment. The other tenure is that of what are called *Shist*, or valued lands; these are the absolute property of the government; and the occupants may be turned out at will. Each field is valued at a cer-

1801. April 2. tain rent to be paid in money, which was first determined by *Sivuppa Nayaka*. The *Rany Viru Magi* added a half of the amount, and *Hyder* doubled her assessment; but no partial raisings upon any man's possessions have been permitted. Rice ground pays from four to eight *Sultany Pagodas* a *Candaca*; at this rate, the field which I measured, being of the worst soil, pays about 3*s*. 8*d*. an acre; its produce in a good crop being about ten bushels of clean rice, which is reduced to eight by deducting the expense of cleaning. Dry-field pays from sixteen to twelve *Pagodas* a *Candaca*: the produce, therefore, must be much greater than the ten seeds stated by the cultivators; for ten *Candacas* of *Ragy* are only worth about seventeen *Pagodas*.

Stock. Four ploughs are here reckoned a large stock; and require four men, two boys, and eight or ten oxen. These four ploughs are said to be able to cultivate one *Candaca* and a half of rice land, with one *Colaga* of dry-field; but, even allowing for the extreme indolence of the labourers, this must be under-rated in the very worst soils.

Cattle. The breed of cattle, when compared with that of the hilly country to the west, begins to improve at *Shiva-mogay*. None, however, that are bred in this district, are fit for the carriage of goods; but the oxen are of a short thick breed, well adapted for ploughing rice ground. Some are exported to the westward. The oxen are not wrought more than four or five hours in the day. From about the end of July till toward the end of January, they are fed on grass, some of which is cut, and at night is given to them in the house. During the remainder of the year they are fed on straw, and husks of *Huruli*; to which, when they are in danger of perishing, some of that grain is added. Very few buffaloes are employed in the plough; but many females are kept for giving milk, and the young males are exported. Immediately on leaving the forests of the western hills, asses become numerous. A few sheep and goats are to be seen, but they are not bred in the country; very few indeed are reared on the west side of the *Tunga-bhadra*. For the use of traders, the public reserves some pasture land; and for each head of cattle they pay two *Dudus* a month. The farmers send their cattle to pasture in the hills and woods, where they pay nothing.

Manure. The cattle are never littered; and the only manure used is their dung, collected in a pit, together with the grass and straw which they did not eat in the night. To these are added the ashes and sweepings of the farmer's house.

Strata. At the entrance into the open country, the *Laterite* seems to stop. The last that I have seen was at *Baikshavâni Mata*. Between that place and *Shiva-mogay* the *strata* are not very observable. In some places they appear to run east and west, in others the rock seems not to be stratified. In one place only, since I came up to *Karnata*, have I observed the large veins of quartz so common to the eastward, and I saw none in any place below the western *Ghats*.

4th *April*.—I went four cosses to *Kudali*. The country all the way is plain; but it contains many detached hills, some of which, toward the north, are pretty high. The whole country is bare, and almost entirely waste. 1801. April 4. Appearance of the country.

Mid-way I came to a village, where the inhospitable disposition of the natives fully manifested itself. Near this village, I overtook a *Sepoy* lying in the utmost agony from a rupture. Having with some difficulty reduced it, the pain in his groin was succeeded by a violent colic, which contracted his limbs; and, had any exercise been at all proper for a man in his condition, rendered him totally unable to walk. I therefore went into the village, in order to procure a cot or bedstead, of which a litter could be readily made. As I had left all my attendants with the sick man, except an interpreter, the villagers held me in contempt. I found the *Gauda*, his brother, and some head men of the village, all *Sivabhactars*, standing in conversation, and wrapped up in their blankets. Having made known to them my case, the *Gauda* replied, that they had no cots, and his brother talked very loud and in an insolent manner. This was checked by the coming up of a superior officer of revenue, who informed me that there were cots in every house; but neither offers of payment, nor threats of complaint, were of more avail than humanity. In excuse for these people it may however be said, that the *Sepoy* belonged to the *Bombay* army, a detachment of which had enabled *Purseram Bhow* to commit all his cruelties. Not that the *Bombay* army had any share in these excesses; but without its assistance he either would not have ventured into the country at all, or would have been assuredly defeated at *Shivay-mogay*. Inhospitable disposition of the natives.

About a coss from this inhospitable village, I crossed the *Tunga*, and from thence to *Kudali*, some part of the country is cultivated. The principal crops are *Jola* and cotton.

Kudali, or the *Joining*, is an *Agraram*, or village given in *Enam* to the *Bráhmans*, and is situated between the *Tunga* and *Bhadra* rivers at their junction, whence the place derives its name. It was plundered and burned, as I have already mentioned, by a party of the *Maruttah* army, who put all the *Súdra* inhabitants to the sword, although the place is quite defenceless, nor did the people attempt to make any resistance. After this, the *Bráhmans* went to complain to the *Bhow*, who gave each of them one *Rupee* as in duty (*Dharma*) bound. *Kudali.*

I found, that the *Guru* or *Swami* was at *Hara-punya-hully*, employed in begging, as it is called. He had with him all his principal disciples; so that the *Bráhmans* who remained at *Kudali* were not men of great intelligence; but they gave me a copy in the *Marattah* character, of the *Sankara Acharya Cheritra*, or an account of the life and actions of that very celebrated personage. It is esteemed a book of great authority, and has been delivered to the Bengal government. *Bráhmans.*

1801. April 4. *Sankara Acharlu*, and his successors.

The *Bráhmans* whom I found at *Kudali* said, that *Sankara* appeared on earth in that character only once, and that he lived about two thousand years ago. At the time of his coming, the sect of *Buddha* and other heretics were very numerous; and most of the *Bráhmans* who were then living had fallen into the error of worshipping the sun, moon, and stars. The *Matam*, or college, of *Sankara Acharya* was at *Sringa-giri*, and he appointed one *Sannyási* only to be his successor, and to occupy his *throne*. The *Matam* of *Sringa-giri* is still called the *throne* of *Sankara;* but each *Swami* that occupies it as his successor has a peculiar name, although they are all acknowledged to be gods, and incarnations of *Iswara*. The successors of *Sankara Acharya* have at different times found it necessary to appoint agents for the management of their remote followers; and, to render these agents sufficiently respectable, it has been found necessary to reveal to them the *Upadesa* peculiar to the rank of *Sunnyási*. By this means a portion of *Iswara* is incorporated with their bodies, in such a manner that the worship offered to them becomes of equal efficacy with the worship of that portion of the deity which remains in heaven. They are not supposed to be possessed of any extraordinary power, which indeed would be a pretension very difficult to support with credit for ages. Several of these agents, who managed their followers with skill, established *Matams* of their own, and appointed successors, who, according to their success, either acknowledged a dependence on the *Sringa-giri throne*, or have pretended to be equal to its *Swami*. Among these, the most conspicuous of whom I have heard is the *Swami* of *Kudali*. About 400 years ago, the first founder of this *Matam* was appointed a *Sannyási* by the *Sringa-giri Swami*, and was entrusted with the management of all the *Smartal* of the *Marattah* nation. These all continue to consider his successors as their *Gurus;* and the present opulence and power of the *Marattah Bráhmans* have raised the *Mata* of *Kudali* to a greater splendour than that of *Sringa-giri*.

Inscriptions.

I procured from the *Bráhmans* of *Kudali* a copy of an inscription engraven on a copper-plate, and belonging to the *Swami*. It is dated *Sal.* 1043, in the reign of *Purundara Rájá*, of the *Cadumba* family at *Banawasi*; and a copy has been given to the government in Bengal.

Three ancient temples.

At *Kudali* are three temples of the great gods, all reckoned celebrated by the *Bráhmans*, and all accompanied by miraculous traditions. The buildings are mean, and have the appearance of being ancient. The oldest, according to tradition, is that dedicated to *Brahmeswara*, one of the names of *Siva*. Many *Yugams* ago, it rose spontaneously from the earth. In the same manner the second sprang up three *Yugams* ago, and is dedicated to *Narasingha*, one of the incarnations of *Vishnu*. At this there is an inscription on stone, but it is no longer legible. The third, compared with the others, is modern, and was built by *Rama* only a few hundred thousand years ago, and dedicated to *Siva*, under the name of *Rameswara*, in order to wash away the sin which *Rama* had incurred by killing *Walli*, king of

Kiskinda, a place that is near *Vijaya-nagara,* and is now called by 1801.
the vulgar name of *Humpay.* This happened immediately after *Rama's* April 4.
return from *Lanca,* or *Ceylon.* When I tell the *Bráhmans* here, that the English have now conquered this celebarated island, they do not venture to call me a liar; but what they think is evident.

At the temple of *Rameswara* are four inscriptions on stone, of Inscriptions.
which one only is entirely legible. It is written in the *Nagara* character, but in the *Karnataca* language intermixed with *Sanskrit.* A copy of it in the character of *Karnataca* has been delivered to the Bengal government. Another, that is partly legible, is also in the *Nagara* character. Two, that are in the character of *Karnata,* are only legible in part. The one is dated in *Cara Sal.* 1214, in the reign of *Vira Narashingha Raya Maha Raya.* Who this prince was I cannot say. The date is 44 years before the foundation of *Vijaya-nagara,* according to *Ramuppa's* chronology. The other is in the year of *Sal.* 1242; the *Raja's* name, however, is not legible.

5th *April.*—I went four cosses to *Sahasiva-hully.* I recrossed the April 5.
Tunga immediately above its junction with the *Bhadra,* where both *Tungabhadra* river.
rivers are nearly of an equal size, and even at this season contain considerable streams. The united rivers form the *Tungabhadra,* the channel of which is very little, if at all, wider than that of either of the parent streams: but its water is of course more copious. The water at this season is sunk very deep in the channel; so that the forming dams for irrigation would be very expensive.

The country on the west side of the river is in general level, but Face of the country.
is interspersed with hills. The whole is exceedingly bare. Near the river are many small villages, each provided with a round tower, near which the houses are crowded for protection. The cultivation near these villages is pretty considerable, and at present is confined almost wholly to the dry grains, about two-thirds *Ragy* and *Tovary,* and one third *Jola* and *Harulu.* The other crops are of little importance. On the higher lands, near the hills, there is no cultivation. The soil in many places there is indeed very poor; but in others it is a fine red earth, reckoned particularly favourable for *Ragy*; and, if there were people, would be cultivated for that grain. The greater part of the tanks have gone to decay, so that there is very little wet land; and, even when the country was in its best state of cultivation, irrigation seems to have been much neglected. The *Kilidi* family, to whom this part of the country belonged, from having lived in a district where artificial watering was not requisite, seem not to have been sensible of its advantages. The *Amildar* says, that by constructing reservoirs much dry-field might be converted into rice ground. Below *Sahasiva-hully,* the river taking a bend to the south-west, I crossed it at the angle, and ascended the right bank to that village. Its name signifies *Along with Siva,* as it is supposed to be a place where that deity resided some time together with his wife. It has a small mud fort, and about a hundred

1801. April 5.

houses. In this open part of the country there are very few fences, which in many points of view is a great loss. The crops here rarely fail from want of rain, and the epidemic disease among cattle is seldom so general as to the eastward. Tigers seem to be more destructive here than in the woods. The want of game makes them bold, and they frequently carry away the inhabitants from their beds.

Inhabitants.

This part of the *Nagara Rayada* entirely resembles the *Mysore* country. The cultivators live in villages, their cattle are large and white, they rear sheep, the country is naked, and the people subsist chiefly on dry grains. Many of the inhabitants are *Cunsa Woculigas*, a laborious and intelligent class of farmers, strongly contrasted with the *Sivabhactars* of the west, who appeared to me to be as stupid and lazy a class of men as I have ever seen.

Strata.

The hills here, however, are not so rugged as toward *Mysore*; but the *strata* run north and south, and contain many lumps of quartz. In all the open country, where there is no *Laterite*, the limestone *nodules* abound. Although the natives in general think that calcareous stone in the ground diminishes its fertility, I have an idea that the want of this substance in the countries to the westward, more than any absolute sterility in their soil, may be the cause why the dry grains do not thrive.

Desolation.

Before the invasion of *Purseram Bhow*, this country was in a very good state. After his destructive march, not about one fourth of the inhabitants remained alive, and these were left destitute of every thing which the *Marattahs* could either carry away or destroy. The wretched remnants of population had again begun to recover, when *Dundia* came among them. He did not put any one to death; but he plundered the houses, and even burned some of the villages, the inhabitants of which he suspected of concealing their property.

Dry-field.

The dry-field of this village is very hard, and full of small stones, being what is called *Darray*; yet it seems to be productive, or at least the people seem willing to acknowledge the real returns which they obtain from its cultivation. Almost every kind of dry grain is raised on it, without attention to rotation, or any idea among the farmers that one grain is more exhausting than another. The soil is never rested, and contains limestone; but it is well dunged. The two great crops are *Ragy* and *Jola*. This has been a remarkably favourable year, and the *Ragy* produced forty seeds.

Allowance of grain for a labouring man.

A hard labouring man is supposed to eat daily the following quantities of the different kinds of grain; the *Mana* of this place containing $84\frac{375}{1000}$ cubical inches.

	Peck.
$1\frac{1}{2}$ *Mana* of *Ragy*, which is weekly	$1\frac{6489}{10000}$
1 *Mana* of *Jola*.	$1\frac{0989}{10000}$
1 *Mana* of cleaned *Shamay*.	$1\frac{0989}{10000}$
$1\frac{3}{4}$ *Mana* of cleaned rice	$1\frac{923}{1000}$

The allowance of *Jola* is reckoned the most nutritious.

					Pence.	1801. April 5.
1 *Ikeri Pagoda* purchases	192	*Manas*	*Ragy*.	1 bushel costs	$12\frac{83}{100}$	
	120	ditto	*Harulu*	... ...	$20\frac{34}{100}$	
	120	ditto	*Tovary*	... ...	$20\frac{54}{100}$	
	160	ditto	*Jola*...	... ...	$15\frac{4}{10}$	

Having ascertained these preliminaries, I went to the fields with the cultivators, and officers of revenue; and found, that in the public accompts they were not valued by any measurement, nor by the quantity of seed which they were supposed to require; but that each field was rated at a certain rent. Having fixed on one that pays two *Rupees*, or half a *Pagoda* yearly, I found that it contained 55608 square feet. The soil is very stony, and apparently poor. The rent is at the rate of 3*s*. $1\frac{875}{1000}$*d*. an acre. The farmers gave me the following account of its average produce, and seed, in four different kinds of cultivation. Rent and produce.

Crop.	Seed.			Increase Folds.	Produce.				
	Of the Field.	Of one Acre.			Of the Field.		Of an Acre.		
					Quantity.	Value.	Quantity	Value.	
								Gross.	Deducting seed and rent.
	Manas.	Bush. dec.	Pence dec.		*Manas.*	*Sul Pay An*	Bush. dec.	Pence dec.	Pence dec.
1st *Ragy* ...	12	0·3689	47·347	20	240	1 4	7·378	94·694	
Avaray.	4	0·12296	not sold.	15	60	not sold.	1·8445	not sold.	not sold.
Total...	16	0·489186			300		9·2225		
2nd *Ragy*...	12	0·3689	4·7347	20	240	1 4	7·378	94·694	
Harulu.	12	0·3689	7·5755	5	60	0 8	1·8445	37·8775	
Total...	24	0·7378	12·3292		300	1 12	9·2225	132·5715	82·3673
3rd *Jola* ...	6	0·18445	2·8408	$20\frac{1}{3}$	122	0 $12\frac{1}{5}$	3·7505	75·763	
Tovary ...	5	0·1537	2·3671	$12\frac{1}{5}$	64	0 $8\frac{6}{15}$	1·9675	30·3	
Total..	11	0·33815	5·2079		186	1 $11\frac{1}{15}$	5·718	88·063	44·9801
4th *Shamay*	24	0·7378	not sold.	10	240	not sold.	7·378	not sold.	not sold.

I here received from *Subaia*, a *Bráhman* of *Holay Honuru*, a short *Raya Paditti*, of which the chronology is very different from that of *Ramuppa*. *Subaia* says, that the original was copious, but was burnt by the *Marattahs*. The present short extract was made up from books and memory, and inaccuracies must therefore be expected. The general chronology is that of the eighteen *Puranas*. The following is a translation. *Raya Paditti*, or chronological table.

1801.
April 5.

"The *Kali-yugam* will contain 432,000 years Particulars.

Yudishtera era...	3,044 years.
Vicrama	135*
Salivahana	18,000
Naga Arguna	400,000
Kali Bupati	821
Total...	432,000

* Query—10,135 ?

Of this there have elapsed to the present time (being *Raudri* of *Salivahana* 1722), 4901 years. Particulars.

Yudishtara era	3044
Vicrama	135
Salivahana...	1722
	4901 years.

Particulars of the *Rávaru* family.

Woragulla Pritapa Rájá
Son of *Campila Rájá*
Son of *Comara Rájá*

The end of his reign was in the year of *Sal.* 1150, *A. D.* 1227. In the year *Servadavi* of this *Rájá Woragulla Pritapa Ráyá* the house guards of the treasury were *Hari-hara* and *Buca Ráya*. According to his order, these two men came to *Vajaya-nagara*. The year *Servadavi* is the commencement of the kingdom of the *Rayaru*. This year, on Monday the 5th of *Chaitra*, they placed the pillar (a ceremony similar to ours of laying the foundation stone) for building *Vijaya-nagara*. The *Rájás* were placed on a throne of jewels.

Here follows a *Slókam*, signifying, "In this manner thirteen princes sat on the throne, governing every caste according to its own customs, and hearkening to the word of God with pleasure."

Particulars.

1 *Hari-hara Raya*
2 *Buca Raya*
3 *Hari-hara Raya*
4 *Virupacsha Raya*
5 *Buca Raya*
6 *Deva Raya*
7 *Rama Raja Raya*
8 *Virupacsha Raya*
9 *Deva Raya*
10 *Rama Raja Raya*
11 *Malicarjuna Raya*
12 *Rama Raya*
13 *Virupacsha Raya*

Total 13 princes reigned 232 years, till the year of *Sal.* 1382, *A. D.* 1459.

After that came the following kings.

Prowuda Raya reigned 12 years. He was a son adopted from *Penu-conda*, and died in the year *Nundina* of *Sal.* 1394, *A. D.* 147½.

After that *Vira Narasingha Ráya* reigned 10 years. He died in the year *Chubucrutu* of *Sal.* 1404, *A. D.* 148½.

After that *Slova Narasingha Ráya* reigned 12 years. He died in the year *Anunda* of *Sal.* 1416, *A. D.* $149\frac{3}{4}$. **1801.** April 5.

After that *Achuta Ráya* reigned 3 years. He died in the year *Pingala* of *Sal.* 1419, *A. D.* $149\frac{6}{7}$.

After that for 9 months there was a *Nava Nayakara.* This literally means nine *Nayaka* or petty princes ; but implies an anarchy where every chief is contending with his neighbour, and plundering the vicinity.

After that came the following kings.

Krishna Raya reigned 40 years. He died in the day time on the 5th of the moon *Kartika,* being Monday, in the year *Hevalumbi* of *Sal.* 1460, *A. D.* $153\frac{7}{8}$.

After that *Sedasiva Raya* reigned 2 years. He died on the *Amavasya,* or last day of *Margasirsha* in the year *Shervari* of *Sal.* 1462, *A. D.* $15\frac{39}{40}$.

After that, *Rama Raja* reigned 24 years. He died on Wednesday the 14th of the dark moon in *Magha,* in the year *Ructachi* of *Sal.* 1486 (*A. D.* 1563), and the city *Vijaya-nagara* was destroyed.

Total seven princes 103 years.

Grand total twenty princes 335 years.

The chronology will be found totally incompatible with the inscriptions. A copy of the original has been delivered to the Bengal government.

6th *April.*—I went three cosses to *Baswa-pattana,* in order to avoid a steep mountainous road, called a *Ghat,* that lies in the direct route between *Sahasiva-hully,* and *Hari-hara.* On the open country through which I passed, there are scattered several small hills. The soil in general seems to be capable of cultivation ; but in other parts the rock comes to the surface, and much of it is waste. The farther I advanced into the open country, I observed that the villages are more strongly fortified. The country is very bare, and, like that to the eastward, is covered with bushes of the *Cassia auriculata,* and *Dodonœa viscosa.* April 6. Appearance of the country.

Baswa-pattana was formerly a part of the dominions of *Kingalu Nayaka,* the *Terricaray Polygar.* His successors were expelled by *Renadulla Khan,* who was succeeded by *Delawer Khan,* both *Mogul* officers. *Delawer Khan* resided here twenty years, and under his government the place seems to have been very flourishing. He was expelled by the *Marattahs,* who held it for seven years, when they were driven out by *Hyder.* This Mussulman destroyed the fort, in order to prevent it from being of use to the *Marattahs,* who in their next incursion destroyed the town ; and till after the fall of *Seringapatam* it continued waste. The fort has now been repaired, and about two hundred houses have been erected in the town. It has two reservoirs, one of which is tolerably large. South east, about two cosses from *Baswa-pattana,* is one of the most celebrated works of this kind, which was erected by a dancing girl from the gains of her profession. It is called *Solicarry,* and the sheet of

1801. April 6.

water is said to be three cosses in length, and to send forth a constant considerable stream for the irrigation of the fields. It is built on a similar plan with the reservoir at *Tonuru*, near *Seringapatam*. A bank has been erected between two hills, and thus confines the water of a rivulet which had originally found a way between them.

Baba Bodeen, and *Vira Bellala Raya.*

Near the fort is a mosque celebrated among the Mussulmans for being the first place where *Baba Bodeen* took up his abode. He afterwards went, and resided on a hill toward the south, which now is called after his name. The people of the mosque say, that he was a saint of the greatest reputation, who, although he performed a number of miraculous things, suffered many presecutions from *Vira Belalla*, the infidel king of this country. The saint at length invited *Jan padisha*, a prince of the Faithful, from the north, and the infidel was taken prisoner. The saint then put the *Raja* and all his family into a pit under his hill, and there they still continue to live, suffering the punishment due to their want of faith.

Sugar-cane.

Near my tent a farmer was at work, expressing the juice from sugar-cane, and boiling it to form *Jagory*. He said that his field contained a *Wocula* land. The taxes amounted to 20 *Pagodas*, or 8*l.* 2*s.* 3d. The whole expense he calculates at 26 *Pagodas*, or 10*l.* 10*s.* 11*d.* The crop season will last 30 days; and on each he will boil three times, getting 2 *Maunds* of *Jagory* from every boiling. He therefore expects to get 180 *Maunds*, which sells at the rate of 3½ *Pagodas* for 10 *Maunds*. The whole produce therefore will be 63 *Pagodas*, or 25*l.* 11*s.* 1½*d.*, leaving a neat profit of 6*l.* 17*s.* 11½*d.*, or 17 *Pagodas*, or very nearly 27 *per cent.* on the gross produce. I did not measure the field. The cane was *Maracabo*.

April 7. Face of the country.

7th *April*.—I went three cosses to *Malaya Banuru*. This last word is a common termination in the names of villages in this part of the country, and signifies a place behind any other; thus *Malaya Banuru* signifies the place behind the hill. On the left of the road, are the low bare hills which form the *Ghat* between *Saha-siva-hully* and *Hári-hara*, and which render that road very bad; but among the hills are many villages, and cultivated places, which from their situation are said to have escaped better than those in the plain. All to the right of this day's route is a fine level country, but it is exceedingly bare of trees and fences. Near the road at least nine-tenths of the soil appear to be good; but a very large proportion of the country is waste, having been desolated by *Purseram Bhow*. The natives say, that two-thirds of the whole plain are of so poor a soil as to be unfit for cultivation. They are very unskilful in making reservoirs, and of course are negligent in the cultivation of rice, and never take a second crop. On being asked the reason of this, they say, that in the dry season the soil is too hot for cultivation. There is, however, no end to the foolish reasons which unskilful farmers assign for their conduct. Sugar-cane is a good deal cultivated, but the kind is the *Maracabo*, which yields a very small quantity of juice, and that contains little saccharine matter.

When the farmers are asked a reason why they do not cultivate 1801.
the *Putta-putty*, or *Restali*, they say, that these canes are so sweet, April 7.
that it is impossible to keep the wild hogs from devouring them. Little or no credit can therefore be given to the reasons assinged by such farmers for their practices, or for the state of the country; especially, as is generally the case, when it is found, that no two people give the same reason; for the ignorant and lazy are in general abundantly unwilling to confess their weaknesses, and, rather than acknowledge them, assign some random excuse for their conduct.

Malaya Banuru has a small fort surrounded by a *Petta*, which contains about two hundred houses. It formerly belonged to the *Terricaray Polygars*, who were at one time very powerful; but their territory became a prey to various invaders. The Mussulmans of *Sira* took *Baswa-pattana*. The *Sivabhactars* of *Ikeri* took from *Mainhully* to *Lacky-hully*. The *Mysore Raja* took *Banawara*. When *Hyder* seized the remainder, it consisted of *Terricaray*, with the adjacent country to the value of a hundred thousand *Pagodas* a year. *Hyder* permitted the family to remain at *Terricaray* with a yearly allowance of thirty thousand *Pagodas*. The whole of this was stopt by the *Sultan*. On his fall, one of the family returned, seized on the fort, and intended to set himself up as an independent prince. He was, however, betrayed by some of his ragamuffin followers, who, after wounding him, hanged him by the orders of the new government. Some of the family now remain, but they have no pension nor allowance.

Balaya Banuru. *Terricaray Polygars.*

In some of the wells here the water is saline, and culinary salt has formerly been made at the place. The saline earth is found in low moist places. In this respect also the *strata* here agree with those to the eastward. No saline earth nor springs are to be found in the hilly western tract, nor in the country below the western *Ghats*.

Saline earth.

8th *April*.—I went a very long stage, called four cosses, to *Hariharo*, and by the way crossed a large empty water-course, and afterwards a wide channel containing a considerable stream, which comes from the *Solicaray*, and is therefore called the *Solicaray holay*. It falls into the *Tungabhadra* immediately above *Hari-hara*, and never dries, except in very extraordinary seasons. The country in general near this day's route is plain, with a few hills scattered at great distances. Much of it is what the farmers of *Malaya Banuru* consider as totally useless; but the people of *Hari-hara* are of a different opinion, and think that two thirds of the whole level country is fit for cultivation, and would be employed in that way were there a sufficient number of inhabitants. A great proportion of it has, however, been long waste; for far beyond the reach of human memory the country has been a scene of warfare, and the wars of the natives are carried on in a most barbarous and destructive manner. The country is exceedingly bare, and at this season is very ill supplied with water.

April 8. Appearance of the country.

1801. April 8. *Marattah* territory.

The bank of the *Tungabhadra* opposite to *Hari-hara* forms a part of the *Marattah* dominion, and at present belongs to *Appa Saheb*, the son of *Purseram-Bow*: the natives here speak in raptures of the *Savanuru* district, including *Darwara, Hubuli*, and *Nilagunda*, and compare its air and fertility to those of *Cashemire*. The territory south of the *Varada*, although fertile, is greatly inferior to the other. Both are fast becoming desert.

Hari-hara.

I remained three days at *Hari-hara*, which was formerly an *Agraram* belonging to the *Brahmans* of its celebrated temple of the same name. After the death of *Ram Raja*, and the destruction of *Vijaya-nagara*, it became subject to the *Adil Shah* dynasty, and was given in *Jaghire* to a *Sheer Khan*, who built the fort. On the conquest of the *Decan*, it was taken by the *Savanuru Nabob, Delil Khan*, who was an officer of the court of *Delhi*. From the house of *Timour* it was taken by the *Ikeri Rajas*, who were expelled by the *Marattahs*; and these again, after fifteen years possession, were driven out by *Hyder*. Since that time these free-booters have taken it thrice; the last time was by *Purseram Bow*. He did not kill any of the people, nor did he burn the town; but he swept away every necessary of life so completely, that many of the inhabitants perished from hunger. They have since enjoyed quiet. The fort contains the temple, and a hundred houses occupied by *Bráhmans*; the suburbs contain three hundred houses of the low castes. The temple, for a *Hindu* place of worship, is a tolerable building, but is kept in the usual slovenly manner. Many families live within its walls, and the area is defiled by cow-dung, mud, broken bricks, straw, dunghills, and other similar impurities. The idol resembles that of *Sankara Narayana* at *Gaukarna*, having part of the attributes or symbols of *Siva*, and part of those of *Vishnu*. Its name also implies its being a representative of both deities; for *Hari* is an appellation of *Vishnu*, and *Hara* one of the titles of *Siva*. Within the walls of the temples are twenty fine inscriptions on stone.

Manners of the people.

The most numerous class of cultivators near *Hari-hara*, and as far at least as *Savanuru*, are the *Sivabhactars*. There are scarcely any *Marattahs* among them, that is to say, *Sudras* of pure origin belonging to *Maharashtra Desam*. Very few of the poorer inhabitants marry, the expense attending the ceremony being considered as too great. They content themselves with giving their mistress a piece of cloth; after which she lives with her lover as a wife, and both she and her children are as much respected, as if she had been married with the proper *Mantrams* and ceremonies: very few of the women live in a state of celibacy, to which indeed in most parts of India, I believe, they are seldom subjected. Few of the men go to foreign countries, and the rich have always more wives than one, which makes up for the men who live as bachelors.

The tenants, I am told, are remarkably fickle, being constantly changing from one side of the river to another, and of course at each time change their sovereign. They appear to me to be

remarkably stupid, but they pique themselves on being superior to their northern neighbours, who, they say, are no better than beasts. 1801. April 8.
Even the *Brahmans* here are stupid, which is certainly a defect not common in that sacred order of men. Out of the hundred houses, I could not get one man who could copy the inscriptions at their temple with tolerable accuracy. During my stay I employed twelve *Brahmans*, and two *Jangamas*, paying them whatever the *Amildar* judged proper; and he kept a man with them to rouse their industry; but I obtained copies of four inscriptions only; and it was necessary to have these corrected by my interpreter, although I could ill spare services.

Of the inscriptions that I had copied here, the most ancient is Inscriptions.
dated in *Sal.* 1444, according to the *Slokam* in which the date is involved.

The next is dated *Sal.* 1452, in the reign of *Vira Pritapa Achuta Raya.*

The next is dated *Sal.* 1453, in the reign of *Achuta Raya.*

The last is dated *Sal.* 1477, in the reign of *Vira Pritapa Sedasiva Deva Kaha Raya.*

All remarks that have been suggested by these inscriptions have already been anticipated in my commentary on the *Raya Paditti* of *Ramuppa.*

This year the crops have been remarkably bad, owing to too Season.
much rain; a circumstance of which I have not heard a complaint in any other part of *Karnata.*

The common currency here being gold *Fanams*, and thirteen of Money.
these exchanging for an *Ikeri Pagoda*, this must be valued at the quantity of pure gold contained in the thirteen *Fanams,* which is somewhat more than it is actually worth. The *Rupee* is worth one fourth of a *Pagoda*

The *Cucha Seer* here weighs 24 *Rupees.* The *Maund* of cotton Weights.
contains 48 *Seers*, or is $29\frac{12}{100}$ lb. nearly. The *Taccady* contains 36 *Seers,* or is $27\frac{48}{100}$ lb. This is the weight used by the farmers. The *Bazar*, or market *Maund,* contains 40 *Seers* of 24 *Rupees.*

A *Cucha Seer* of oil, &c. measure 16 $\frac{3125}{10000}$ cubical inches. Liquid Measure.

The grain measure is founded on the *Chitty* of $159\frac{3}{4}$ cubical Dry Measure.
inches; 4 *Chitties* make 1 *Gydna*; 20 *Gydnas* make 1 *Colaga*; 20 *Colagas* 1 *Candaca,* which contains $118\frac{583}{1000}$ bushels.

Land here is estimated by *Mars*, the extent of which the natives Land Measure.
have two methods of ascertaining. The most common is, to call a *Mar* that extent of ground which requires $2\frac{1}{2}$ *Gydnas* of *Jola* for seed. I measured a field said to require twelve *Gydnas* of seed, and found it to contain 17,67,684 square feet. According to this, the *Mar* is 368,267½ square feet, or somewhat less than eight acres and a half. The other method of ascertaining the extent of a *Mar* is by counting the number of rows of pulse or *Acadies* contained in it, when it has been sown with *Jola.* A square field containing 120 of such rows is called a *Mar.* If the rows are from 3 to $3\frac{1}{2}$ cubits dis-

1801. April 8.

tant, this extent would coincide with that given by my measurement. I did not ascertain this to be the case at *Hari-hara*, but I found it to be the actual distance in other parts of the neighbourhood.

Harvest price of the produce.

The merchants here give the following as the average rate at which the produce of the country sells by wholesale immediately after harvest:

Cotton wool with the seed	per *Maund*,	$\frac{1}{6}$ *Pagoda*	Cwt.	$62,\frac{41}{100}$	Pence
Do. cleared from do.	do.	12 *Fanams*	do.	$345,\frac{6}{10}$	do.
Cotton seed	do.	1 *Pagoda*	do.	$18,\frac{72}{100}$	do.
Jagory	do.	$\frac{1}{6}$ *Fanams.*	do.	$138,\frac{95}{100}$	do.

One *Ikeri Pagoda* purchases			Which therefore sells at	
Gydnas	20 of	*Jola*	pence 16,378	per bushel
do.	18	*Avaray*	18,298	
do.	12	*Tovary*	27,307	
do.	10	*Hessaru*	32,757	
do.	20	*Madiky*	16,378	
do.	20	*Hurali*	16,378	
do.	16	*Alsunda*	20,473	
do.	10	*Callay*	32,757	
do.	20	*Navonay*	19,378	
do.	18	*Sujjay*	18,298	
do.	12	*Gur Eilu*	27,307	
do.	12	*Harulu*	27,307	
do.	20	*Ragy*	16,378	
do.	10	*Rice*	32,757	
do.	9	*Wheat*	36,396	

Spinning of cotton wool.

In this neighbourhood much cotton thread is spun. The women of the cultivators spin part of the produce of their husbands' farms; and others receive the cotton wool from the merchants, and spin it for hire; but the women of the *Bráhmans* are as averse from spinning, as their husbands are from holding the plough. The merchant always purchases the cotton with the seed, and employs people to clean it. From four *Maunds* of raw cotton he gets one of cotton wool, at the expense of four *Fanams*, which is one third of the value of the whole cotton thus cleaned. The instrument is a small mill, consisting of two horizontal cylinders moved by a perpetual screw, and turned by the hand; while a semi-cylindric cavity behind forces back the cotton to the person who feeds the mill. (See Plate XXVII. Fig. 74.) The rudeness of the machinery, as usual in India, renders the expense of the operation great, in comparison with the value of the raw material. The *Maund* of cotton wool, in beating with a bow, the manner universally used in India and China for preparing it for the wheel, loses an eighth part, expense included; that is to say, the merchant gives forty *Seers* of cotton wool to the cleaner, who returns thirty-five fit for spinning. When this is spun, the thread weighs only from thirty to thirty-two *Seers*, owing I suppose to its having been imperfectly cleaned. The coarsest thread made here costs $8\frac{3}{4}$ *Fanams* for the spinning of the 35 *Seers* of prepared wool, which has been procured from 40 *Seers* of raw cotton. At this rate, to make a pound of cotton wool into thread, costs a very little less than $2\frac{3}{4}$ pence, and it looses in the operation from one fourth to one fifth of its weight. The thread is remarkably coarse.

Small mill for cleaning cotton at Hari-hara.

Fig. 74.

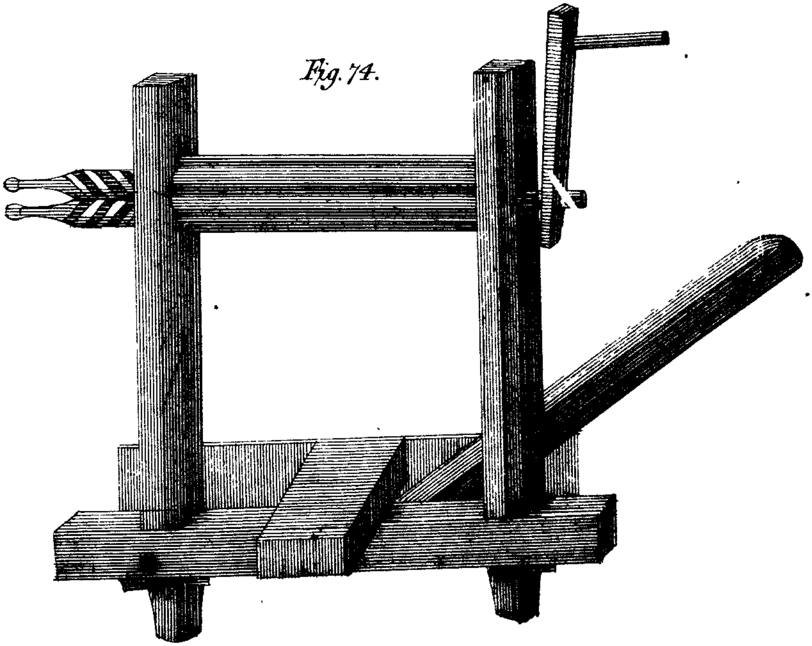


Fig 83.

1801. April 8. *dar*, and the *Shanaboga* with the public rental, I found that it paid 15 *Pagodas*, or at the rate of $3\frac{1}{5}$ *Pagodas* a *Mar*, or nearly 3*s*. an acre. In general, it was of a fine black soil; only about one acre of it was rather stony, although the whole was reckoned of the first quality. The immense difference in the rent, as stated at my tents, and again in the field, did not strike me at the time, so that I got no positive explanation; but it, no doubt, arose from the following circumstance. This *Shist*, or valuation of the country, was first made by the *Rayarus*. It was increased by the *Savanuru Nabobs* in the proportion of 8 to 3; and *Hyder* added to this an increase of $\frac{1}{8}$ part. Both he and his son imposed some new assessments: but these were not included in the rental, and have been remitted by *Purnea*. The people at the tents mentioned the tax imposed by the *Rayarus*, which by way of eminence is probably called the *Shist*; while at the field the whole land-tax that is now levied as brought into the accompt. The *Mar* of land of the best quality pays therefore $3\frac{1}{8}$ *Pagodas*, or at the rate of 3*s*. an acre; the *Mar* of the 2nd quality pays $2\frac{5\frac{1}{2}}{16}$ *Pagodas*, or at the rate of 2*s*. 3*d*. an acre; and the worst pays $1\frac{9}{10}$ *Pagoda* a *Mar*, or 1*s*.6*d*. an acre. Rice-ground pays no higher than dry field; so that the only advantage government has by watered-land, is an excise of three *Pagodas* on every 1000 sugar-canes planted. Some soils here contain saline matter; and if the water be allowed to lodge on low spots, these become so impregnated with salt, as to be of little value for cultivation; but with proper pains this may be avoided. In some of the clay-land, there is a kind of soil, which, though it is black, and to all appearance of the kind called *Eray*, yet it does not retain water, and very soon becomes dry; but, by a proper management of the manure, it may be rendered productive.

Division of village lands. The three kinds of ground being of very different qualities, every man's share of each is scattered up and down in various places, in order to make the assessment fall equally; but hence arises an inexplicable obscurity in the accompts, and a great hindrance to improvement. All the cultivators live in fortified villages, and each man's share is scattered in small patches through the village lands.

The *Gaudas*, or chiefs of the villages, are hereditary; but in case of their incapacity, the village may be let to *Gutigaras*, or renters. These renters and *Gaudas* force the cultivators to labour more than they are willing, which is a pernicious practice. The extreme indolence of the people in this neighbourhood is, however, an excuse that bears at least the appearance of reason. The *Amildar* says that without compulsion they would not cultivate more than $\frac{2}{3}$ or $\frac{3}{4}$ of what they are able. A subsistence is all that they look for, and with little labour that can be procured. Superfluities, or riches, they have some reason to consider as mere temptations to the plunderer; so long as a man cultivates his fields, he cannot be deprived of them; but they cannot be mortgaged, or sold, to pay

his debt. If he allow his lands to become waste, the government can give them to any person who will undertake their cultivation; but the original proprietor may at any time resume them, when he is able to find sufficient stock. 1801. April 8.

The greater number of the farmers here have only one plough each; but all such as have not more than three ploughs are reckoned poor men, and are in general obliged to borrow money to pay the rent, and to carry on the expenses of cultivation. The crop is a security to the lender, who is repaid in produce at a low valuation. Farmers who have 4, 5, or 6 ploughs, are able to manage without borrowing, and live in ease. Those who have more stock are reckoned rich men. Each plough requires one man and two oxen, and can cultivate two *Mars* of land, or about 17 acres. In seed time and harvest, some additional labourers must be hired. All the farmers, and their children, even those who are richest, *Bráhmans* excepted, work with their own hands, and only hire so many additional people as are necessary to employ their stock of cattle. A servant's wages are from six to nine *Jimshiry Pagodas* a year, together with a blanket and pair of shoes. The *Jimshiry Pagoda* is four *Dudus* worse than that of *Ikeri*, which is rather less than 1⅓ *per cent.* The wages are therefore from 2*l.* 7*s.* 10*d.* to 3*l.* 11*s.* 9*d.* Out of this they find every thing but the shoes and blanket. Men labourers get daily half a *Fanam*, or 3¼*d.*, and women receive one half of this hire, which is seldom paid in money, but is given in *Jola* at the market price. The man's wages will purchase daily about a quarter of a bushel. The people here work from eight in the morning until sunset, and in the middle of the day are allowed twenty-four minutes to rest and eat. The cattle work from eight in the morning until noon. They are then fed for an hour, and work from one until about five o'clock. Size of farms. Servant's wages.

Many of the farmers keep no cows, but purchase all their cattle. They, of course, can sell at least one half of their straw to the *Bráhmans* of the town, who in general keep many milch cows, and who in return sell the young oxen and the manure to the farmers. Although the cattle are always kept in the house, except during the two months immediately following the rains, no litter is used. Their dung is collected in pits, with the sweepings and ashes of the family, and sells for from six to twelve *Dudus* for the load of a cart which is drawn by eight oxen, but which does not appear to contain more than a single-horse cart. The price is from about 5*d.* to half that amount. The farmers also hire flocks of sheep to manure their fields, and say, that for folding his flocks on a *Mar* of land, they give the shepherd one *Colaga Jola*; this, however, must be a gross exaggeration. Cattle and manure.

The most considerable crop in this neighbourhood is *Jola* (*Holcus sorghum*), which is always accompanied by one or more of the following articles, *Avaray* (*Dolichos Lablab*), *Tovary* (*Cytisus Cajan*), *Hessaru* (*Phaseolus Mungo*), *Madiky*, a kind of pulse that seems to [Jo]la, with its accompanying grains.

1801. April 8. be peculiar to this part of the country, and of which I have seen only the seed; *Huruli* (*Dolichos biflorus*), and *Alasunda* (*Dolichos Catsjang*). These articles being intended chiefly for family use, a portion of each is wanted, and every man puts in his *Jola* field a drill or two of each kind.

Jola. *Jola* thrives best on black clay, but is also sown on the red earth, and even sometimes on the stony soil. In *Chaitra*, the field is hoed with a *Heg Cuntay* (Plate XXVIII. Fig. 75.) which requires from six to eight oxen to draw it; for this is the month following the veneral equinox, when the soil is very dry and hard. In the following month the field is ploughed once, and then manured. In the month preceding the summer solstice, the seed is sown after a rain by means of the drill; while the rows of the accompanying grains are put in by means of the *Sudiky* or *Acadi*. The drill here differs from that of *Banawasi*, (Plate XXVI. Fig. 73,) in wanting the iron bolts that connect the bills with a wooden bar which crosses the beam. The *Sudiky* is a *bamboo* with a sharp point, which is tied to the drill, and through which the labourer drops the seed of the pulse, as he follows that implement. After having been sown, the field is smoothed with the *Bolu Cuntay*, a hoe drawn by oxen, and entirely resembling the *Heg Cuntay*, but of a lighter make. On the 20th day the field is weeded with the *Edday Cuntay*, (Plate XXVIII. Fig. 76), and on the 28th day this is repeated. In five months the *Jola* ripens, without farther trouble. The *Mar* of land usually produces 7 *Colagas* of *Jola* or 56 fold, worth 7 *Pagodas*; deduct for rent $3\frac{1}{8}$ *Pagodas*, and for seed $\frac{1}{8}$ *Pagoda*, and there remains to the cultivator for stock and labour $4\frac{3}{4}$ *Pagodas*, or about 68 *per cent.* of the gross produce, besides the pulse and straw; but this last must be allowed to go for manure. Besides, in favourable seasons the farmer from the high-rented *Jola* land procures a second crop of *Callay*, (*Cicer arietinum*) as follows.

Callay. If after harvest there be any rain, the field is ploughed in the month preceding the winter solstice. It is then ploughed across, and by means of the sharp pointed *bamboo* the seed is dropt into the furrows after the plough, and is covered with the *Heg Cuntay*. The *Mar* of land requires 8 *Gydnas* of seed, and produces 4 *Colagas* or 10 seeds. This, deducting the seed, is a neat produce of 72 *Gydnas*, worth $7\frac{1}{5}$ *Pagodas*. It is only from the very best ground that this can be taken, and each farmer's share of this kind is very small.

A few rich spots are reserved solely for the cultivation of *Callay*, and these are cultivated in the following manner. In the month following the vernal equinox the field is ploughed once, then manured, and in the following month is hoed with the *Heg Cuntay*. Between that period and the month preceding the shortest day, the grass is ploughed down twice, and the seed is sown with the sharp *bamboo* following the plough, and covered with the *Heg Cuntay* as before described. It ripens in three months, and produces 8 *Colagas*; which, deducting seed, leaves 152 *Gydnas*, worth $15\frac{1}{5}$ *Pa-*

godas; from which if $3\frac{1}{8}$ be taken for rent, the cultivator has better than 12 *Pagodas* for his trouble and stock. 1801. April 8.

Cotton. Cotton is raised entirely on black soil, and is either sown as a crop by itself, or drilled in the rows of a *Navonay* field. In the former case, two crops of cotton cannot follow each other, but one crop of *Jola* at least must intervene. In the 2d month after the vernal equinox, the field is ploughed once, then manured, then hoed with the *Heg Cuntay*; and the grass is kept down by occasional hoeings with the *Bolu Cuntay*, until the sowing season in the month preceding the autumnal equinox. The seed is sown by a drill having only two bills, behind each of which is fixed a sharp pointed *bamboo*, through which a man drops the seed; so that each drill requires the attendance of three men, and two oxen. The seed, in order to allow it to run through the *bamboo*, is first dipt in cow-dung and water, and then mixed with some earth. Twenty days after sowing, and also on the 35th and 50th days, the field is hoed with the *Edday Cuntay*. The crop season is during the month before, and that after the vernal equinox. The *Mar* of land requires three *Maunds* of seed, worth $\frac{1}{20}$ of a *Pagoda*. The produce is 50 *Tacadies*, at 7 for a *Pagoda*, and therefore amounts to $7\frac{1}{7}$ *Pagodas*. From this deduct $\frac{3}{20}$ of a *Pagoda* for seed, and $3\frac{1}{8}$ *Pagodas* for rent, and there remains to the cultivator for trouble and stock very little less than 4 *Pagodas*. When these weights, measures, and values. are reduced to the English standard, the produce of an acre appears very small. The seed is about $10\frac{1}{3}$ lb. worth two-pence. The produce is about $1\frac{281}{1000}$ cwt. worth, according to the cultivators, $82\frac{1}{4}$ pence: deducting 36 pence for rent, and two-pence for the seed, there will remain for the cultivator $44\frac{1}{4}$ pence, or about 53 *per cent.* of the gross produce.

Next to *Jola*, the most considerable crop in this neighbourhood is *Navonay*, which is cultivated on both the black and red soils, but by far most commonly on the latter. On the black soil it is usually accompanied by cotton in the rows between the drills; on red soil, it is accompanied by rows of *Jola*, *Sujjay*, (*Holcus spicatus*), and *Gur' Ellu*, which is the *Huts Ellu* of *Seringapatam* (*Verbesina Sativa*, Roxb. MSS.) In black soil, the ploughing commences in the month following the vernal equinox. After having been ploughed, the field is manured, and in the following month is hoed with the *Heg Cuntay*, and, after eight days rest, with the *Bolu Cuntay*. In the month following mid-summer, the seed is sown with the drill, and the accompanying grains by means of the sharp *bamboo*. The seed is covered by two hoeings with the *Bolu Cuntay*, one lengthwise and the other across. On the 20th and 21st days the weeds are removed y the *Edday Cuntay*. In three months the crop is ripe. In the red oil, the ploughing does not commence until the beginning of he rainy season; but the seed time, and all the process of agriculture, are the same as in the black soil. The *Mar* of land requires for seed 5 *Gydnas* of *Navonay*, worth $\frac{1}{4}$ *Pagoda*; together with one *Maund* of cotton seed, worth $\frac{1}{20}$ *Pagoda*; or $\frac{3}{4}$ *Gydna* of *Jola*, worth

Navonay, or *Panicum Italicum*.

1801. April 8.

$\frac{10}{266}$ *Pagoda*; or 1 *Chitty* of *Sujjay*, worth $\frac{1}{72}$ part of a *Pagoda*; or 1 *Chitty* of *Gur' Ellu*, worth $\frac{1}{48}$ of a *Pagoda*. The produce in a middling crop is 12 *Colagas* of *Navonay*, worth 12 *Pagodas*, together with 15 *Tacadies* of cotton, worth $2\frac{1}{7}$ *Pagodas*; or $1\frac{1}{2}$ *Colaga* of *Jola*, worth $1\frac{1}{2}$ *Pagoda*; or 1 *Colaga* of *Sujjay* worth $1\frac{1}{2}$ *Pagoda*; or 1 *Colaga* of *Gur' Ellu*, worth $1\frac{2}{3}$ *Pagoda*. It must be evident from this, that the people who gave me the account diminished the real produce of the *Jola*, which would never be the common object of cultivation, while *Navonay* was so much more profitable.

Sujjay, or Holcus spicatus.

Sujjay is here the next most common crop, and is always accompanied by *Huruli*, or *Alasunda*, or *Tovary*, or *Hessaru*. This is the crop commonly taken from the red soil, or that of the second quality. In the month preceding the summer solstice, the field is plouged once, then manured, and then hoed with the *Heg Cuntay*. At the end of the month the seeds are sown with the drill, and covered with the *Bolu Cuntay*. On the 20th and 28th days, the field is weeded with the *Edday Cuntay*. In three months the crop is ripe. The *Mar* requires for seed $\frac{1}{2}$ *Gydna* of *Sujjay* worth $\frac{1}{16}$ *Pagoda*; together with 2 *Gydnas* of *Huruli*, worth $\frac{1}{10}$ *Pagoda*; or 1 *Gydna* of *Alasunda*, worth $\frac{1}{16}$ *Pagoda*; or 3 *Gydnas* of *Tovary*, worth $\frac{1}{2}$ *Pagoda*; or $1\frac{1}{2}$ *Gydna* of *Hessaru*, worth $\frac{3}{20}$ of a *Pagoda*. The average produce is 12 *Colagas* of *Sujjay* worth $13\frac{1}{6}$ *Pagodas*; together with $1\frac{1}{2}$ *Colaga* of *Huruli*, worth $1\frac{1}{2}$ *Pagoda*, or $1\frac{1}{4}$ *Colaga* of *Alasunda*, worth $1\frac{7}{8}$ of a *Pagoda*; or 2 *Colagas* of *Tovary* worth $3\frac{1}{3}$ *Pagodas*; or 1 *Colaga* of *Hessaru*, worth 2 *Pagodas*. The rent is about $2\frac{11}{23}$ *Pagodas*. From these *data*, the share which the farmer gets for his stock and labour may readily be calculated. For instance, the gross produce of a *Mar* sown with *Sujjay* and *Huruli* is $14\frac{2}{3}$ *Pagodas*; while the rent and seed are rather more than $2\frac{1}{2}$ *Pagodas*, or $17\frac{1}{4}$ *per cent.* of the gross produce. This is another proof that the cultivators concealed the real produce of *Jola* and cotton, which are their most common crops.

Huruli, or Dolichos biflorus.

Huruli, or what the English of *Madras* call *Horse-gram*, is at *Hari-hara* the next most usual crop, and is cultivated entirely on the poorest and worst soil, which pays as rent $1\frac{9}{16}$ *Pagoda* for the *Mar*. The field is ploughed once in the end of the 2nd month after the summer solstice. In three or four days afterwards it is ploughed again; and with the sharp *bamboo* the seed is dropped into the furrow, after the plough, in rows about 9 inches distant from each other. It is then covered with the *Heg Cuntay*. On the 20th and 28th days, the hoe called *Edday Cuntay* is employed to remove weeds; and in five months it ripens without farther trouble. A *Mar* of land requires for seed five *Gydnas*, worth $\frac{1}{2}$ *Prgoda*; and the common produce is 3 *Colagas*, worth 3 *Pagodas*; so that the farmer has here only $1\frac{3}{16}$ *Pagoda* out of 3 of the gross produce; but he gives no manure, and the trouble is very small, and performed at a season when little else is doing.

On the 2d quality of soil some considerable quantity of *Harulu*, or *Ricinus*, is raised. In the month preceding the summer solstice, when the rainy season commences, the field is ploughed once. Fifteen days afterwards the seed is dropped into furrows made by the plough, in rows two cubits distant from each other, and is covered by another furrow. At the end of a month from sowing, the weeds are removed by the *Edday Cuntay*; and every 15 days afterwards, until the month preceding the autumnal equinox, the intervals between the rows must be ploughed. At this time the plants begin to flower; and the fruit ripens at various times between the month following the autumnal equinox, and that following the winter solstice. A *Mar* of land requires 2½ *Gydnas* of seed, worth $\frac{5}{24}$ of a *Pagoda*. The produce is six *Colagas*, worth ten *Pagodas*. It is sold to the oil-makers, who extract the oil by boiling, as is the usual practice in India. The seed is first boiled for about an hour, when it bursts a little. It is then dried in the sun three days, and beaten into flour in a large mortar. The flour is then put into a pot with a little water, and boiled for about two hours. The oil floats above the flour, which forms a thick mass in the bottom of the pot. The oil is very bad, and thick. Two *Gydnas* of seed give sixteen *Seers*, *Cucha* measure, of oil; so that a bushel gives about 2 wine gallons. 1801. April 8. *Harulu.*

Ragy (*Cynosurus corocánus*), *Shamay*, (*Panicum miliare*, E.M.), *Harica* (*Paspalum frumentaceum*, Roxb. MSS.), *Baragu* (*Panicum miliaceum*), *Wull' Ellu* (*Sesamum*), and *Udu* (*Phaseolus minimoo*, Roxb. MSS.), are also cultivated at *Hari-hara*; but in such small quantities, that a particular account of each will not be required.

The usual daily allowance of grain for one person's eating, is ½ *Chitty*, or about 27 bushels a year. The *Navonay* and *Sujjay* are chiefly consumed by the *Bráhmans*, and other people in easy circumstances, as being a more light and delicate food; while the labourers feed upon *Jola*, or *Ragy*, purchased from other districts. *Jola* straw, being the most common, is reckoned the most wholesome fodder for cattle. Allowance of grain for a man.

The watered lands are here of little importance; for in the whole district, which produce anuually 15,000 *Canter' Raya Pagodas* there are no dams, and only six reservoirs. The rains are quite inadequate to the cultivation of rice. Very little of this grain is therefore sown. Orders, however, have been issued by *Purnea* to erect dams on the *Solicaray Holay*. The *Amildar* says that there are three places in the district where reservoirs might be constructed with advantage. He thinks that forming dams on the *Tungabhadra* would be attended with great expense; nor could they be so constructed as to irrigate much ground. Below *Hari-hara* indeed, towards *Anagundi*, there are very fine ones, which supply with water rice-grounds worth 100,000 *Pagodas* a year. These are situated partly in the territories of the *Nizam*, and partly in those lately ceded to the Company. Watered lands.

1801. April 8. Sugar-cane.

Sugar-cane is here the most considerable irrigated crop, as it requires but a small supply of water. In the intervals between the crops of cane, a crop of rice is taken, should there be a sufficient supply of water; but that is seldom the case, and the intermediate crop is commonly some of the dry grains. The land, when cultivated for grain, pays the usual rent; when cultivated with sugar-cane, it pays three *Pagodas* for every 1000 double cuttings planted. Land that pays 10 *Pagodas* of rent is called a *Wocula* land, which, as it plants 6000 double cuttings, pays, when under sugar-cane, 18 *Pagodas*, with two *Pagodas* for the use of the boiler, making in all a rent of 20 *Pagodas* for the *Wocula*, as stated by the man at *Baswapattana*.

The account that follows was taken from a principal accomptant (*Sheristadar*), who says that he is proprietor of a field, and is well acquainted with the process. The cane may be planted at any time; but there are only three seasons which are usually employed. One lasts during the month before and another after the summer solstice. This is the most productive and most usual season; but the cane requires at this time longer to grow, and more labour, than in the others; so that, although it pays the same tax only, it yields to the cultivator but little more profit. The other two seasons are the 2d month after the autumnal equinox, and the 2d month after the shortest day. Those crops arrive at maturity within the year. I shall confine myself to an account of the process in the first season. The kind of cane cultivated is the *Maracabo*, of which, according to the *Sheristadar*, 4,800 canes are required to give one *Maund*, or about 24¼ lb. of *Jagory*. When asked why he does not raise a better kind, the *Sheristadar* says, that the soil is too poor, and the climate too dry; both of which are, to all appearance, ill founded excuses for an obstinate adherence to old custom. In the second month after the veneral equinox, the field must be watered, and eight days afterwards it is ploughed once. After another rest of eight days, it must be ploughed again with a deeper furrow, four oxen having been put into the yoke. After another interval of eight days it is ploughed, first lengthwise, and then across, with a team of six oxen. Then, at the distance of three, or three and a half cubits, are drawn over the whole field furrows, which cross each other at right angles. In order to make these furrows wider, a stick is put across the iron of the plough. In the planting season, two cuttings of the cane, each containing two eyes, are laid down in every intersection of the furrows, and are covered slightly with mud. The furrows are then filled with water, and this is repeated three times, with an interval of eight days between every two waterings. A little dung is then put into the furrows; and when there happens to be no rain, the waterings once in the eight days are continued for three months. When the canes have been planted forty days, the weeds must be removed with a knife, and the intervals are hoed with the hoe drawn by oxen. This operation is repeated on the 55th, 70th, and 85th

days, and the earth is thrown up in ridges toward the canes. In the beginning of the fourth month, the field gets a full watering. Fifteen days afterwards, the intervals are ploughed lengthwise and across; and to each bunch of plants a basket or two of dung is given and ploughed in. The weeds are then destroyed by a hoe drawn by oxen; after which, channels must be formed between the rows; and until the cane ripens, which varies from fourteen to seventeen months, these channels are filled with water once in fifteen days. The crop season lasts from one month to six weeks. The mill is excessively rude, being two cylinders moved by a perpetual screw, and turned by a beam, to which four oxen are yoked. The *Wocula* land plants 6000 double cuttings, and the bunch springing from the two cuttings planted at each intersection contains from eight to twenty canes. The average may be fourteen, or altogether 84,000. These, at 4800 for the *Maund*, should produce not quite eighteen *Maunds*, which is only one-tenth part of that which the man at *Baswa-pattana* mentioned, and he may be considered as having given a true account. The *Sheristadar* however, on being pressed, acknowledges 120 *Maunds*; but he is evidently a liar, and no dependence can be placed on what he says concerning the produce. I did not get any satisfactory account concerning the extent of ground called a *Wocula*; but there is no reason to suppose any difference between the *Wocula* of *Baswa-pattana* and that of *Hari-hara*. If we take 6000 squares, of 3½ cubits, as the extent of a *Wocula*, it will give 3¾ acres, which pay a tax of 20 *Pagodas*, or at the rate of 2*l*. 2*s*. 9*d*. an acre.

1801. April 8.

April 11th—I went three cosses to *Davana-giri*. Near the road, three small hills excepted, the whole country is fit for the plough. Much of it however, even where the soil is of that fine black mould called *Eray*, would appear never to have been cultivated, and is overgrown with bushes. The soil of a very small proportion indeed, so far as I can judge, appears to be too barren for cultivation; much of it, however, is *Marulu*, or a poor stony land, and some of it is a red soil, fit for the cultivation of *Ragy*.

April 11. Appearance of the country.

Davana-giri contains above 500 houses, and a new *Bazar* (or street containing shops) is now building. In the centre of the town is a small mud fort. Some years ago, it was a poor village; and its rise is owing to the encouragement given to settlers by *Apojee Rama*, a *Marattah* chief, who, having entered into the service of *Hyder*, obtained the place as a *Jaghire*. He died without heirs, but *Tippoo* continued to give encouragement to settlers, and ever since it has been gradually increasing. It is the first place in the *Chatrakal* principality (*Rayada*) towards the west; and the *Amildar* of the district (*Taluc*) usually resides at it, although properly it is not the *Kasba*, or chief town.

Davana-giri.

At *Davana-giri* some coarse cotton cloths are made; and at every village of the district three or four looms are employed in the manufacture. The staple commodity, however, of the *Chatrakal* prin-

Manufactures.

1801. April 11. *Cumlies.*

cipality consists of *Cumlies*, or a kind of blankets which in their fabric greatly resemble English camblets. They are four cubits broad, by twelve long, and form a piece of dress, which the natives of *Karnata* almost universally wear. They are not dyed, but are of the natural colour of the wool, which in the finer ones is almost always a good black. The best are made at *Harapunya-hully*, in the territory lately ceded to the Company, and at *Davana-giri*. Each of the blankets, made of the wool from the first shearing of the sheep, sells for from two to twelve *Pagodas*, or from 16*s.* 2¼*d.* to 4*l.* 17*s.* 4*d.* Those at four *Pagodas* are the finest made for common sale; and these, with all of an inferior value, are brought to weekly markets, and purchased by the merchant for ready money. If any of a higher value are wanted, advances must be made. The great excellence of these blankets is their power of turning rain; and, the finer they are, the better they do this. Some have been made, that were valued so high as from two to three hundred *Rupees*, and that were considered to be impenetrable by water.

Wool.

Before the sheep are shorn, they are well washed. The wool, when it has been shorn, is teased with the fingers, and then beaten with a bow, like cotton, and formed into bundles for spinning. This operation is performed both by men and women, partly on the small *Hindu* cotton wheel, and partly with the distaff. Some tamarind-seeds are bruised; and, after having been infused for a night in cold water, are boiled. The thread, when about to be put into the loom, is sprinkled with the cold decoction. The loom is of the same simple structure with that usual in *India*. The new made cloth is washed by beating it on a stone; and when dried, is fit for sale. From this account of the process it will be evident, that the great price of the finer kinds is owing to the great trouble required in selecting wool sufficiently fine, the quantity of which in any one fleece is very small.

Commerce. Carriage.

Davana-giri is a place of considerable trade, and is the residence of many merchants, who keep oxen, and send goods to distant places. Some of the merchants hire their cattle from *Sivabhactars*, *Mussulmans*, and *Marattahs*, who make the carriage of goods a profession, and are called *Badigaru*. The load is reckoned 8 *Maunds* of 48 *Cucha Seers*, or about 233 lb., and the hire is estimated by this quantity, whatever load the owner may choose to put on his cattle. The hire for a load to any place near, is one *Fanam*, or almost 7½ pence, for every *Gau* or *Gavada* of 4 cosses, which amount upon an average, I suppose, to be between 12 and 14 miles; but to the great marts at a distance there is a fixed price; for instance, the load from *Sagar* near *Ikeri*, to *Wallaja-petta*, near *Arcot*, costs 3 *Pagodas*, or 1*l.* 4*s.* 4½*d.* The distance may be about 320 miles.

Customs.

Far from considering the customs exacted at different places on the road as a burthen, the traders here consider them as advantageous; for the custom house is bound to pay for all goods that may be stolen, or seized by robbers, within their respective districts. This

seems to be an excellent regulation, which is in general use throughout the peninsula. 1801. April 11.

Trade with Arcot. The most valuable trade here is that which is carried on with *Wallaja-petta*. The goods carried from hence are *Betel-nut* and pepper, and those brought back are *Madras* goods, imported from Europe, China, Bengal, and the eastern islands, together with salt, and some of the manufactures of the coast of Coromandel.

Trade with the *Nagara* principality. There is also a great trade carried on between this and *Nagara*, and *Sagar*. From thence are brought *Betel-nut* and pepper, and from this are sent *Cumlies*, salt, and *Madras* goods.

Trade with the ceded district. Next to these, the trade with *Rayá-durga*, and *Harapunya-hully*, in the newly-ceded district, is the most considerable. The exports from *Davana-giri* are coco-nuts, *Jagory*, tobacco, turmeric, *Betel-nut*, pepper, and *Capsicum*. The returns are, a little cotton wool, and cloth, *Cumlies*, and a large proportion of cash.

Trade with the *Mysore* principality. To *Caduru*, and other places south from this, are sent cotton, cloth, and *Terra Japonica*; and from them are brought coco-nuts, tobacco, turmeric, fenugreek, garlic, and *Danya*, a carminative seed. The manufacturers of this neighbourhood frequently carry their blankets to *Seringapatam*.

Trade with the *Marattah* country. Merchants from the *Marattah* territories beyond the *Tunga-bhadra* bring hither silk cloths, cotton, *Terra Japonica*, and wheat; and take away *Callay* (*Cicer arietinum*), *Jagory*, and coco-nuts. At present this trade is at a very low ebb; parties of the *Marattah* troops seizing on whatever they meet. As these are not robbers, but persons regularly employed by government, the custom-house is not held answerable for their depredations.

From this it would appear, that the trade of *Davana-giri* chiefly consists in exchanging the produce of one neighbouring country, for those of another. The only articles of export produced in the neighbourhood are *Cumlies*, *Jagory* (inspissated juice of sugar cane), and *Callay* (*Cicer arietinum*).

April 12. *April* 12th.—To-day I was prevented from advancing by no less than seven of my people having been seized with the fever in the course of the night, and from its being impossible, without some delay, to provide means for their being carried. Fevers have of late been very prevalent among my servants, although the country is perfectly dry and clear. The weather is now very hot in the day-time, with strong irregular blasts of hot wind, which often comes in whirls. The nights are tolerably cool. Early this morning we had a very heavy rain, with much thunder, but little wind.

Sheep. As I was detained here, in order to save time I sent for the principal sheep-breeders in the neighbourhood, and obtained from them the following account. Throughout the principality, and in the neighbouring country of *Harapunya-hully*, which belongs to the Company, sheep are an object of great importance, and are of the kind called *Curi* in the language of *Karnata*. They are kept by two castes, the *Curubaru*, and *Goalaru*. A man of either caste, who

1801. April 12. possesses a flock of sheep, is by the Mussulmans called a *Donigar*. The *Curubaru* are of two kinds; those properly so called, and those named *Handy* or *Cumly Curubaru*. The *Curubaru* proper, and the *Goalaru*, are sometimes cultivators, and possess the largest flocks; but they never make blankets. The *Handy Curubas* abstain entirely from cultivation, and employ themselves in tending their flocks, and manufacturing the wool. The flocks kept by the two former castes contain from 30 to 300 breeding ewes; those of the *Handy Curubas* contain only from five to one hundred and fifty. All the shepherds have besides some cows, buffaloes, and *Maycays*, or long-legged goats; but the sheep form the chief part of their stock. They are pastured in waste places; for which a *Hulibundu*, or grass renter, is appointed by government; and to him each family pays a certain rent, fixed by an old valuation of their property. This rent varies from ½ a *Fanam* to 20 *Fanams* a year, or from 3¼*d*. to 12*s*. 5¾*d*. It is said, that changes in the quantity of a family's stock are not common, and that it is rare for a man to possess thirty more or less than his ancestor had at the time of the valuation. If any man's flock, however, should increase much above the number originally belonging to the family, the *Hulibundu* may increase the tax. The Office of *Hulibundu* is not hereditary; but there are certain families of shepherds hereditarily annexed to the *Hulibundu* of each district; that is to say, they must pay their tax into his Office. They are at liberty to pasture their flocks wherever they please, even into the territories of a different sovereign. Thus a shepherd of this place may feed his flocks in *Harapunya-hully*; but he pays his rent to the *Hulibundu* of *Chatrakal*.

The sheep are allowed no food but what they can procure in the pastures, which are open uncultivated lands containing a few scattered bushes, but which are here called *Adavi*, or forests. In the rainy season, the sheep at night are driven into folds made of prickly bushes. In the dry season, they are at night confined on the arable lands, for the purpose of manuring them; and, as a reward, the cultivator gives victuals to the shepherds and their dogs. Four rams are reckoned sufficient for a hundred ewes. Owing to the temperate nature of the climate, the females breed at all seasons indifferently, and they bear six months in the womb. They have their first lamb at eighteen months old, and breed once a year, but never have twins. After bearing three lambs, the ewe is sold. If allowed to live, she would breed five times, but afterwards she would not be saleable. Sheep are never fattened for the market, farther than can be done by pasture, with which in India a sheep seldom becomes fat; but I think the meat of those here is better than I have seen any where else in India, where the animal has not been stall-fed. For stall-feeding, they are preferred by the gentlemen of Madras, who used formerly to be supplied from Bengal.

The males, except those intended for breeding, are sold by the shepherds when under two years of age. At a year old, the best

males are selected for breeding, the others are castrated. A female at one year old, sells for about a quarter of a *Pagoda*, or rather more than two shillings, and continues of the same value until after having had her third lamb. A male of a year old is worth the same money. A wether two years old is worth about a third of a *Pagoda*, or 2*s*. 8½*d*. A good ram for breeding sells for half a *Pagoda*, or rather more than four shillings. 1801. April 12.

Wool. The fleece is shorn twice a year; in the second month after the shortest day, and in that which follows the summer solstice. The first fleece is taken when the sheep is about six months old, and is by far the finest in quality. From this alone can *Cumlies*, of any considerable fineness, be made. Every successive fleece becomes worse and worse, and does not increase in quantity. The sheep are never smeared. They are commonly black; and the deeper this colour is, the more valuable the wool is reckoned. The finer blankets are all of an excellent native black, without dye. Each fleece weighs from 1½ to 3 *Seers*, or from $\frac{91}{100}$ of a pound, to $1\frac{82}{100}$ lb. The fleeces, as shorn, are divided into three qualities; which sell for 13, 8, and 7 *Fanams* the *Maund*; or for 1*l*. 11*s*. 2¾*d*., 19*s*. 2¼*d*., and 10*s*. 9½*d*. for the hundred weight.

Handy-Curubaru. The *Handy Curubaru*, or in the singular number *Curuba*, are a caste living in the *Harapunya-hully* and *Chatrakal* districts, and are of *Karnata* descent; but many of them have now settled on the banks of the upper part of the *Krishna* river, in the *Marattah* dominions. All those who have settled in that country being horsemen, they are called *Handay Ravalar*, a name pronounced *Rawut* by the *Mussulmans*, and by them frequently applied to every kind of *Curuba*. In this country they confine themselves entirely to the proper duties of their caste; which are, to rear sheep, and to work up wool into blankets. They can eat with the other tribes of *Curubaru*, but do not intermarry with them. They are allowed a plurality of wives, and their women continue to be marriageable after the age of puberty. Widows may live with a second husband as left-hand wives, (*Cutigas*), and their children are not thereby disgraced; for in this tribe there is no inferior *Cutiga* caste. A woman who commits adultery is always excommunicated; nor can her paramour take her for his *Cutiga*. The *Handy Curubas* eat sheep, fish, venison, and fowls. They hold pork to be an abomination, and look upon the eating of the flesh of oxen, or of buffaloes, as a dreadful sin. They are allowed to drink spirituous liquors. When a *Curuba* dies, his property, as is usual with that of all *Hindus* in *Karnata*, is divided equally among his sons; and his wives and daughters are left entirely at the discretion of the males of his family.

The Deities, whom this caste consider as their peculiar objects of worship, are *Bira Deva*, and his sister *Mayava*. *Bira* is, they say, the same with *Iswara*, and resides in *Coilasa*, where he receives the departed spirits of good men. Bad men are punished in *Naraca*, or by suffering various low transmigrations. There is only one temple of

1801. April 12. *Bira*, which is situated on *Curi-betta*, or the sheep hill, on the banks of the *Krishna*, near the *Poonah*. There is also only one temple dedicated to *Mayava*. It is near the *Krishna*, at a place named *Chinsuli*. Once in ten years, every man of the caste ought to go to these two temples; but a great many do not find leisure for the performance of this duty. These deities do not receive bloody sacrifices, but are worshipped by offerings of fruit and flowers. The priests (*Pujaris*) at both these temples are *Curubaru*; and, as the office is hereditary, they of course marry. Once in four or five years they go round, distributing consecrated powder of turmeric, and receiving charity. Besides the worship of the deities proper to the caste, the *Curubas* offer secrifices to some of the destructive spirits, such as *Durgawa, Jacani*, and *Barama Deva*. When sick, or in distress, they vow sacrifices to these spirits, provided they will no longer exert their baneful influence. The *Curubaru* have no trouble from *Pysachi*; and ordinary *Butas*, or devils, they believe, are expelled by prayer addressed to the deities of the caste. At *Hujiny*, in the *Harapunya-hully* district, resides *Ravana Saddheswara*, the *Guru* of this caste. His office also is hereditary; and he is able to read, an extent of knowledge to which no other person of the tribe has pretensions. The *Guru* attends at feasts and sacrifices, to receive his share, and punishes transgressions against the rules of caste by fine and excommunication. At the principal ceremonies of the *Curubaru*, such as marriages, building a new house, or the like, the (*Panchanga*) astrologer of the village, who is a *Bráhman*, attends; and, having read the prayers (*Mantrams*) proper on the occasion, receives the accustomed due.

April 13. Appearance of the country. *April* 13th.—I went what was called four cosses, but the stage was exceedingly long, and halted at *Coduganar*. Except two small hills between which I passed, all the country near this day's route is sufficiently level for the plough, and very little of it appears to be too barren for cultivation. Some of the soil is black clay, some is red mould, but by far the greater part of it is poor stony land. I saw several villages, but a very small proportion of the country is cultivated, and from time immemorial much has been waste. A long continued scene of Indian warfare has prevented by far the greater part from having been cultivated. The most severe loss, however, that the natives remember, was what they suffered in *Purseram Bow's* invasion, when the whole *Chatrakal* principality was reduced to nearly a desert. The *Amildar* of *Mahiconda*, who met me at *Coduganar*, says, that almost the whole country is capable of cultivation, and with manure will produce either *Ragy* or *Jola*.

Leopard, or panther. In the forenoon a leopard was killed by the people of the village in a garden near the town, and brought to my tent in great triumph, with everything resembling a flag, and every instrument capable of making a noise, that could be collected. First he had been shot in the belly, and then he was driven to the banks of a reservoir, where he stood at bay; and, before he was killed, wounded three of the men who attacked him with spears; one of whom was severely

torn. He agreed very well with the description in Ker's translation of Linnæus, and was about four feet from the snout to the root of the tail. He had killed several oxen; and in this country, it is not unusual for leopards to attack even men. Although I have called this animal the leopard, there is reason to think that it does not differ from the panther of India; for I am persuaded that we have no larger spotted animal of the feline genus. The Indian panther and leopard I consider, therefore, as two names for the same animal. The African panther may, however, be different, as certainly is the hunting leopard of India. 1801. April 13.

April 14th.—I went a very long stage, called four cosses, to *Aligutta*. For some way, near the middle of this day's route, the road passed among low hills that are rather barren. On both sides of these there is a great deal of fine land; for much of the soil is of the fine black mould called *Eray*. Almost the whole is waste, owing chiefly to the invasion of *Purseram Bow*. Many of the fields, however, would appear to have remained longer uncultivated, which is attributed to invasions by the *Marattahs* that happened during the government of *Hyder*. I do not think that more than a tenth part of the arable fields is now occupied. *Ragy* and sugar-cane seem to be what the farmers attend to most; yet there is much land fit for *Jola* and cotton. Some sheep are reared; but all the wool is sent to other places, where it is manufactured. In the villages of this district are scattered a few weavers of coarse cotton cloths. In the *Chatrakal* principality there are no plantations of palm-trees; but there are many gardens in which kitchen stuffs (*Tarkari*) are raised. Among these, the carrot thrives remarkably well, and in flavour is superior to any that I have seen in India. *Aligutta* is a sorry place, situated among some rocky heights that are fortified. Contiguous to it is a very good reservoir. Distant from it about three cosses to the south, is a reservoir, which in size almost equals *Solicaray*, and is named *Bhima Samudra*, or the sea of *Bhima*, who was one of the five sons of *Pandu*, celebrated in *Hindu* fable. April 14. Face of the country.

15th *April*.—I went a very long stage, called also four cosses, and encamped in the plain near *Chitteldroog*, as we call it. Most of the country through which I passed is tolerably good, but very thinly peopled, and poorly cultivated. After having passed over a low ridge of hills, I came to a small rivulet, named *Jenigay holay*, which has its source from *Bhima Samudra*, and from various mountain torrents. It runs towards *Gudi-cotay*, the chief town of a district in this principality, and contains water at all seasons. It forms some fine reservoirs, and in several places is also conveyed by canals to irrigate the fields for cultivation. April 15.

The plain of *Chitteldroog* is two cosses and a half from north to south, and one coss from east to west; the coss here being at least four miles. It is every where surrounded by low, rocky, bare hills, on one of which stands the *Durga*, or fort, formerly the residence of the *Polygars* of this country. By the natives it is called either *Chitteldroog.*

1801. April 15. *Sitala-durga*, that is to say, the spotted castle, or *Chatrakal*, which signifies the umbrella rock; for the *Umbrella* is one of the insignia of royalty. During the government of the *Rayarus*, the tributary *Polygars* of *Chatrakal*, who by descent were hunters (*Baydaru*), governed a country valued at 10,000 *Pagodas* a year, or 3120*l.* 8*s.* 4*d.* On the decline of the royal family of *Vijaya-nagara*, these enterprising hunters, by gradually encroaching on their neighbours, increased their territories until they became worth annually 350,000 *Pagodas*, or 109,213*l.* 10*s.* 10*d.* The *Moguls* had no sooner settled at *Sira*, than they began to covet the *Chatrakal* principality, which being entirely an open country, ought to have fallen an easy prey to their cavalry. *Suda Hilal, Nabob* of *Sira*, made the attempt, and besieged the town for two years, but without success. He then retired to *Sira*, having received a promise of an annual tribute, the payment of which he probably did not expect. *Hyder*, soon after taking *Bidderuru*, attacked *Chatrakal*. The first siege lasted five months, and was unsuccessful. After the second siege had continued six months, there was little prospect of success, and *Hyder* had recourse to corruption. Partly by money, and partly by the influence of a common faith, he obtained the treacherous assistance of a *Mussulman* officer, to whom the *Raja* had given a high military command. At this time the town was very large, and filled a great portion of the plain; but owing to the removal of its court it has since gradually decayed. Still, however, it is a considerable place, and seems to receive particular encouragement from *Purnea*. It is now confined entirely within the walls, which are near the foot of the rock. They were strengthened by *Hyder*; and the town, after the peace granted by Lord Cornwallis, having become a place near the *Marattah* frontier, *Tippoo* had employed *Dhowlut Khan*, one of his slaves, to add much to its strength. The new works are now completing, and will render it totally impregnable against such invaders. Indeed, as it was before, *Purseram Bow* made no attempt to besiege it, that kind of warfare being little adapted for his troops, or indeed for those of any native prince; for the walls that resisted the two years siege of the troops of the haughty *Mogul*, were built entirely of mud. From the hereditary *Shanaboga* of this place, named *Shimuppa*, I received a history of the *Polygars* of *Chatrakal*, which I have delivered to the Bengal government.

April 16. Sickness prevalent in the hot weather. *April* 16th.—I unfortunately found, that the *Subadar*, or chief officer of the principality, was absent, and that his inferiors were little disposed to render me any assistance; of which I was much in want, owing to the number of my people who were sick, and who were daily attacked with fevers. The whole neighbouring country is reckoned exceedingly unhealthy, although it is perfectly dry and clear; and indeed, ever since I have come upon the open country near the *Tunga*, my people have been suffering very much. The natives say, that every country is unhealthy in which the black soil called *Eray* abounds. In the neighbourhood of *Chatrakal* there is

also a deficiency of water. To reach it, the wells must not only be very deep, but all that is procurable is of a bad quality. This may be in part attributed to the common nastiness of the *Hindus*, who wash their clothes, bodies, and cattle in the very tanks or wells from which they take their own drink; and, wherever the water is scanty, it becomes from this cause extremely disgusting to a European. 1801. April 16.

Finding that the agriculture of this country differed in nothing material from that at *Hari-hara*, and *Davana-giri*, and wishing to remove my people to a more healthy situation, I determined to make no longer stay at the inhospitable *Chatrakal*, but to go to *Heriuru*, where the air and water are reckoned wholesome.

17th *April*.—I went two cosses to *Siddamana-hully*, a mud fort containing sixty houses. The first half of the way led through the plain of *Chatrakal*, which is mostly uncultivated, but consists of a fine black soil. Beyond the hills surrounding this plain, toward the east, is an extensive level bounded by *Nunnivala* hills and fort. The soil most common in this plain also is black. The number of inhabitants now in the country is not above a third part of what were in it before the *Marattah* invasion. The two great articles of cultivation here are *Jola* (*Holcus sorghum*) and *Navonay* (*Panicum italicum*), of which about equal quantities are raised. The next most considerable crops are *Sujjay* (*Holcus spicatus*) and cotton. The quantity of wheat and *Callay* (*Cicer arietinum*) is small. There are no reservoirs, but some might be constructed. Near the village is said to be a place where one might be built that would water as much land as would sow 10,000 *Seers* of rice. The chief (*Gauda*) at *Siddamana-hully* is a *Sivabhactar*, as indeed is common in this principality; for since the overthrow of their chief by *Hyder*, the *Bayduru* have become almost extinct. April 17. Appearance of the country.

18th *April*.—I went three cosses to *Imangula*, and had on my right all the way a prolongation from the hills on which *Chatrakal* stands. The country near my route is chiefly level, and most of the soil is black; but it is almost entirely waste, and has very few tanks. Near *Imangula* is a small one that waters some rice ground. April 18.

Although almost every year, before the commencement of the rainy season, this tank becomes dry, and has no communication with any rivulet, yet it contains many small fishes, all of which are caught whenever it dries. It would appear, that their eggs, although no doubt they become dry with the mud and stones, retain life, and are hatched so soon as they are moistened by the next rain. This shows the practicability of transporting the eggs of fishes from one country to another with very little trouble. Eggs of fishes very tenacious of life.

Imangula is a large fort, but much space within is empty, and it contains only about 90 houses. The chief (*Gauda*) is hereditary as is usual throughout the *Mysore Raja's* dominions, and he acts as *Pujari* to the image of the village god. Almost every village has a peculiar deity of this kind, and most of them are believed to be *Imangula.* Practice of swinging before idols.

1801. April 18. of a destructive nature. That of *Imangula* is *Kalikantama*, a female deity. To her image an annual feast is given by the *Gauda*, who offers sacrifices, while her wrath is appeased by the people, who are swung round before the shrine, as they are suspended from the end of a lever by a hook of iron, that is passed through the skin of their backs. This cruel worship is never performed before the great gods; and the *Bráhmans* of the south consider it as an abomination, fit only for the groveling understandings of the vulgar.

Singular manner of cultivating the dry field.

In the black soil which forms a large portion of the fine plains east from *Chatrakal*, a singular manner of cultivation prevails. The plough used is drawn by from eight to sixteen oxen, and is heavy in proportion. In plate XXIX. Fig. 80, is represented one that was drawn by eight oxen, the iron of which weighed 12 *Seers*, or about 7¼ lb. The largest is exactly of the same shape, but much stronger, and its iron is double the weight. The reason of the number of cattle which the farmers here employ seems to be, the hardness acquired by the black soil in the dry and hot season during which the labour must be performed. After the commencement of the rains it becomes so sticky, that cattle cannot walk on it. In many parts of the *Marattah* country, I am told, the same mode of cultivation prevails, and that the plough is often drawn by 12 yoke of oxen, worth each from sixteen to twenty *Rupees*. With the strong team in use here, the field every third year receives two or three ploughings. In the two intermediate years it is only hoed with the *Cuntay*. It requires no manure, and is never rested, but constantly gives a crop of *Jola* (*Holcus sorghum*) or *Navonay* (*Panicum italicum*), which are sown without any attention to rotation. On the year in which the field is ploughed, rows of *Callay* (*Cicer arietinum*) accompany the *Jola*; but in the two intermediate seasons nothing is sown with this grain. The *Navonay* is always accompanied by rows of cotton, at the distance of two cubits and a half. Both seeds are sown with the drill. The crop on the second year after ploughing is reckoned the best. When the country becomes inhabited and acquires a good system of agriculture, this part of the *Chatrakal* principality, which consists of *Eray*, or black soil, seems likely to be a source of great wealth; but its present desolation must for a considerable time keep it poor, and, adding to the natural unhealthiness of the climate, will make the increase of population slow.

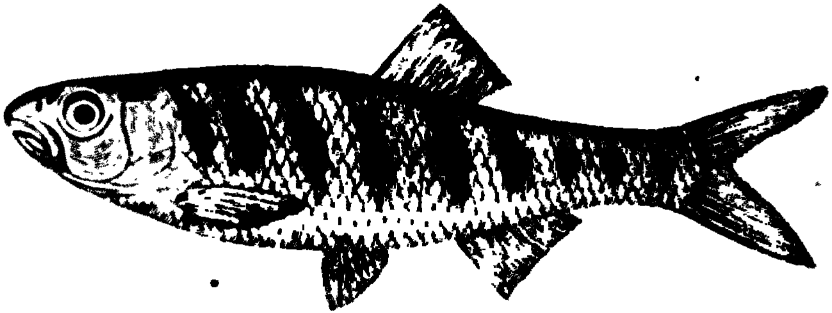
April 19. Appearance of the country.

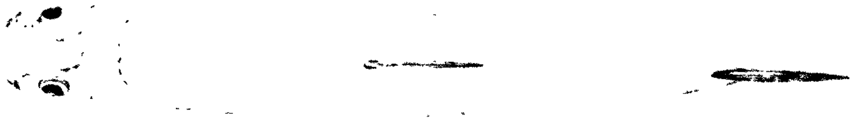
April 19th.—I went three cosses to *Heriuru*, near which a great change takes place in the appearance of the country. The soil is mostly stony, and at this season exceedingly parched; so that there is scarcely any grass, and the only green things to be seen are a few scattered *Mimosas*.

Delay owing to sickness.

Owing to the sickness among my people, and an accident having befallen my horse, it became impossible for me to proceed farther; and as I had found it impracticable, when at *Sira*, to procure a palanquin bearer there, it became necessary to wait until some conveyance should be sent from *Seringapatam*. This delayed me four

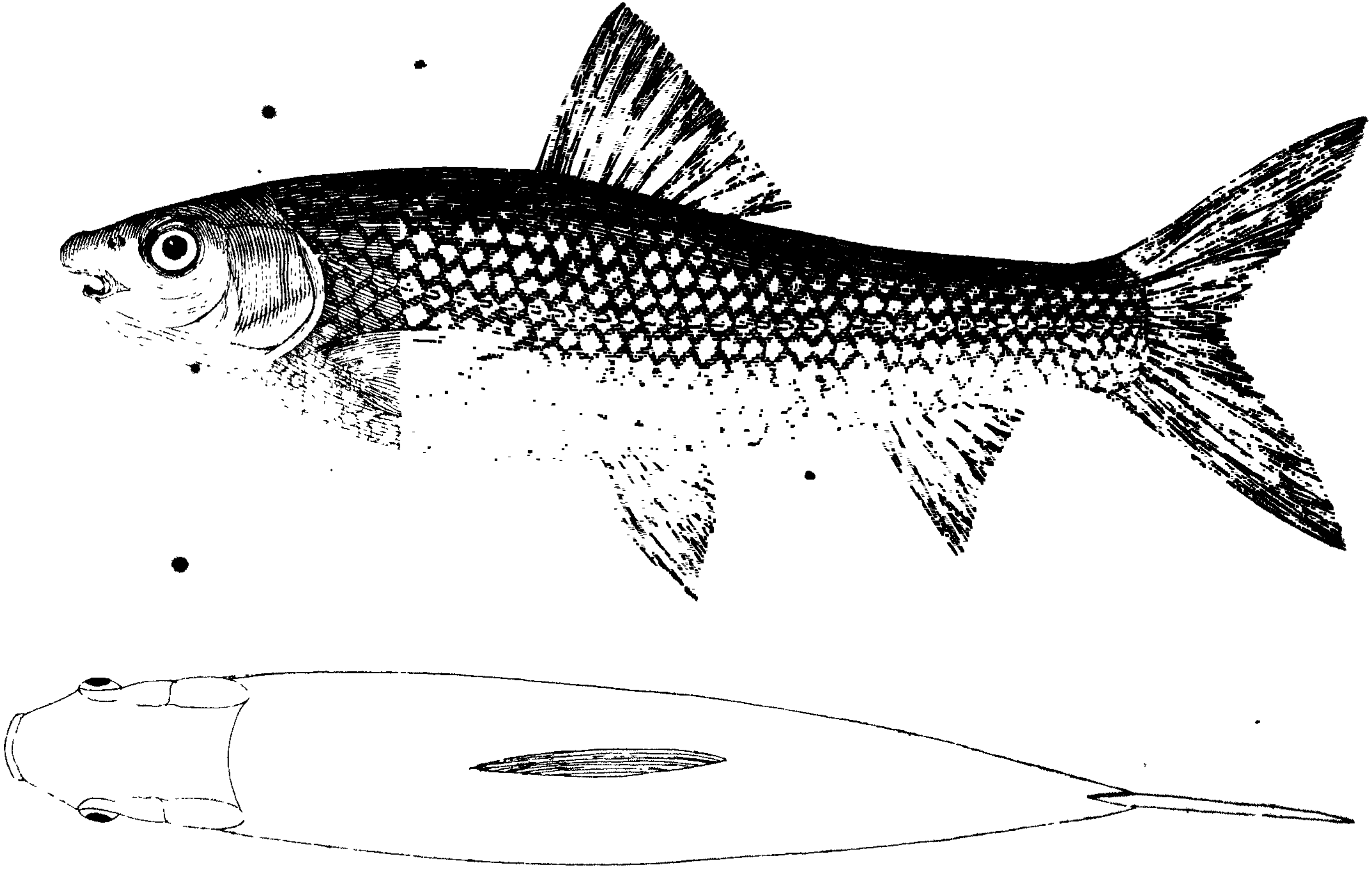
PLATE XXIV





CYPRINUS BENDELISIS.

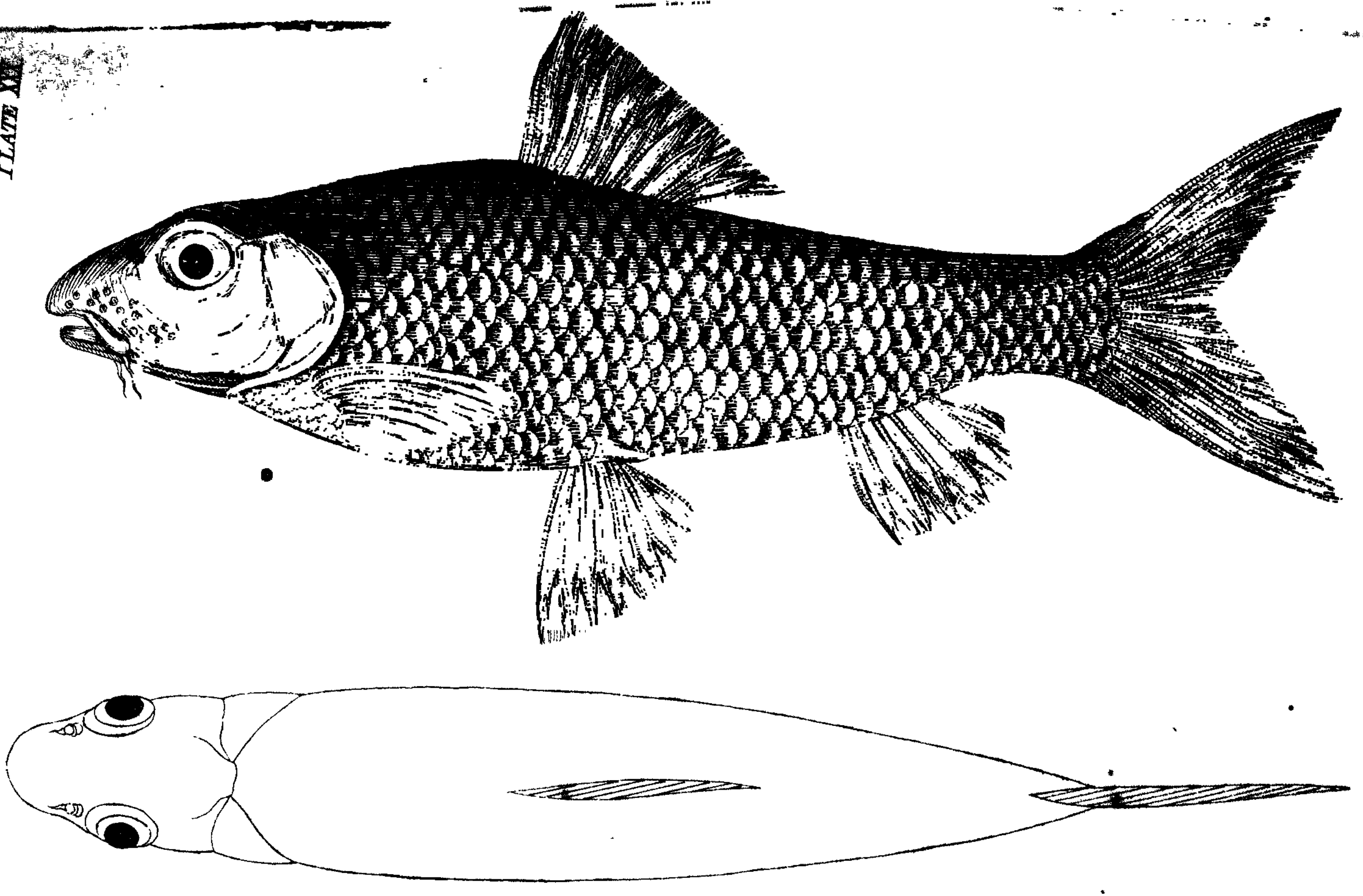
Plate



CYPRINUS ARIZA. B.

C PACKENSKY LITH.

PLATE XII



CYPRINUS CURMUCA B.

G. PACZENSKY LITH.

teen days, nor could a set of bearers by any means be procured at *Seringapatam*. I should have been reduced to the necessity of walking, had not the *Dewan* obligingly sent a positive order for the bearers of *Sira* to enter into my service. The common bearers of India are unwilling to enter into the service of a traveller, although the wages he gives are immense, when compared with what they get at home; for he takes them far from their families, to places which they consider as another world. All objects of enquiry having been soon exhausted, while the desert nature of the country precluded any resource from botany, my stay at *Heriuru* proved very tedious. 1801. April 19.

The winds in the day-time were hot, and came generally from the south. Slight whirlwinds from the same quarter were common. At night the winds were westerly, and tolerably cool. There were a few slight showers of rain, with some heavy squalls of wind, which changed all round the compass, and were accompanied by a terrible cloud of dust. Climate.

I procured much comfort from a small clear stream, called the *Vedawati*, in which I cooled myself every evening, and whence I procured the three species of *Cyprinus* from which the accompanying figures (Plates XXX, XXXI, XXXII,) were taken, and of which the following are the scientific characters: Fish.

1. *Cyprinus Carmuca B.*

C. cirrhis duobus; corpore elongato; capite callis tuberculato; radiis pinnæ analis octo, dorsalis undecem.

Karmuka Telingorum.

Habitat in fluviis *Karnatæ*. Piscis aliquando tres pedes longus.

2. *Cyprinus Ariza B.*

C. imberbis cauda bifida; corpore elongato; maxilla inferiore carinata; radiis pinnæ analis septem, dorsalis duodecem.

Kincla Minu Tamulorum

Bangun Batta Bengalensium.

Arija Telingorum.

Habitat in fluviis Indiæ australis. Pisces hos numquam vidi trium palmorum longiores.

3. *Cyprinus Bendelizis B.*

C. cirrhis duobus; cauda biloba, corpore elongato, semi-fasciato; radiis pinnæ dorsalis novem, ani undecim.

Bendelisi Telingorum.

Habitat in fluviis *Karnatæ*. Pisciculus digiti longitudinem vix exsuperans.

This fine little river seldom or never dries up, and comes from *Sakra-pattana*. Its water is clear, and is reckoned wholesome. Four cosses below *Heriuru* it is joined by the *Cuttay-holay*, which comes from *Mugha-Nayakana-Cotay* and *Hagalawadi*, and forms the boundary between the *Chatrakal* principality and *Sira*. Although this receives a small stream from *Sira*, yet in the hot season it commonly becomes dry. The natives here say, that the *Vedawati* joins the *Utara Pinakani*, or northern *Pennar*, after having received the *Jaya-mangala*

1801. April 19. river, which comes from *Nandi-durga*; but this is a clear proof of their extreme ignorance of topography. The *Vedawati* is the river which Major Rennell calls *Hogree*, and it joins the *Tungabhadra*.

Heriuru. *Heriuru* signifies "a head place." It is situated on the east side of the *Vedawati*, and during the government of the *Chatrakal Rajas* contained 2000 houses, with an outer and inner fort, and several temples of the great gods, one of which is of considerable size. This temple, called *Gunavunti*, possesses an inscription engraven on stone, dated *Sal.* 1332, in the reign of *Deva Raya*; of which a copy has been delivered to the Bengal government. In the reign of *Hyder*, the town suffered considerably from the *Marattahs*, and was plundered by *Purseram Bow*. The ravages of this chief were followed by a dreadful famine, which swept away all the inhabitants. When the British army arrived last before *Seringapatam*, about 50 or 60 houses had again been occupied. Some of the dealers in grain that followed the camp found their away even to this distance, and plundered the wretched inhabitants. At the same time *Barama Nayaka*, a chief of the *Chatrakal* family, assembled some banditti, and entered the territories of his ancestors, to try what could be done. He had constant skirmishes with the *Sultan's* garrison in *Chatrakal*, and in each of these two or three villages were plundered by one or other of the parties. After the capture of *Seringapatam*, this chief wisely entered into the service of the *Mysore Raja*, and is now employed in the command of 3000 men acting against a *Polygar* who by us is called the *Bool Raja*. When Colonel Dalrymple arrived with his detachment, giving protection to this part of the country, the number of inhabited houses in *Heriuru* was reduced to seven. About 300 have since been rebuilt, and the place is the chief town of a (*Taluc*) district.

Strata. The *strata* at *Heriuru* run nearly north and south, and are almost quite vertical. The basis of the country is somewhat between an *argillite* and *schistose hornblende*. It contains no veins that I observed; but in some places I saw large amorphous masses of reddish fat quartz imbedded in its substance. When exposed to the air, it readily decays, and is then covered with a cinereous crust. For building it is a very poor stone; at least what is near the surface; but in a temple of *Iswara* without the walls I observed some pieces of it that have been squared, and resemble much the fine hornblende slate from *Batuculla*. It is probable, therefore, that by digging quarries excellent materials for building might be procured. Of these, however, there is no want any where in *Karnata*.

The only other common rock here is called the Black stone, and it may be considered as forming large beds between the strata of the argillaceous hornblende slate. This is an earthy quartz or hornstone, impregnated with hornblende. When exposed to the air, its masses do not readily acquire a crust, but separate into irregular quadrangular pieces, truncated at both ends. In the fissures may sometimes be observed yellow shining *nodules*, which I take to be

the *mica aurata.* It contains no other venigenous matter. and does not cut with the tools of the natives; but from the angular shape of its fragments, the smooth surface with which they break, and its great durability, it is excellently fitted for rough walls. 1801. April 19.

The *Seer* measure used in the market (*Bazar*) here for grain contains 79½ cubical inches; 72 *Seers* make one *Wocula* or *Colaga.* The farmers' measure is founded on another plan: 2 *Seers* make 1 *Arecal,* which contains 176⅝ cubical inches; 2 *Arecals* make one *Gydna*; 16 *Gydnas* make one *Wocula*; and 20 *Woculas,* or *Colagas* make one *Candaca,* which therefore contains a little more than 52½ bushels. The *Wocula* of the (*Bazar*) market, and that of the farmers, are commonly considered as the same; but in fact the former contains 5508 cubical inches, and the latter 5652. Dry measures.

The following is the average price of grain, calculated to the nearest farthing. Price of grain.

		Canter' Raya Pagodas.		*Pence.*
1 *Candaca* of	*Sujjay* worth ...	8	The bushel is worth	11½
	Huruli	8	... ...	11½
	Navonay	8	.. ..	11½
	Harica	5	... ...	7¼
	Wheat	18	... ...	26
	Ellu	15	... ...	11¾
	Callay ...	12	... ...	17¼
	Ragy	8	... ...	81½
	Paddy, or rough rice	8	... ...	11½
	Rice cleared from the husk	18	... ...	26

Cotton, cleared of the seed, is worth 12 *Fanams* for the *Maund* of 48 *Seers,* each weighing 22 *Dudus,* or 1*l.* 10*s.* 8½*d.* a hundred weight.

In this neighbourhood, the cultivation of dry field is the grand object, and differs very considerably from that in the western parts of the principality, where the black mould prevails. Here all the land is a poor stony soil. In some places it contains nodules of limestone; but these are considered as unfit for any kind of cultivation. Dry field.

The whole lands are the property of the government. Some are still called *Enam,* but this is merely in remembrance of their former tenure; for the holder of the *Enam* has no fuller right than any other tenant. No lands can be sold, mortgaged, or let to sub-tenants. They are let from year to year, and the possessions are changed from man to man at the pleasure of the officers of revenue; but the rent of each field is fixed by an old valuation. The cultivators never at any time gave more than this rent; and being at present few in number, considerably less is exacted, in order to encourage them to cultivate as much land as possible; for they are totally inadequate to the cultivation of the whole. Tenures.

The extent of dry-field is estimated by the plough, and all ploughs are said to be of nearly the same dimensions. I measured one, which I found contained 562,280 square feet, that is, very little less Plough o land.

1801. April 19.

than 13 acres. One plough can not only cultivate this extent, but also a little of the watered land, the rent of which is paid by a division of crops. In doing this, the officers of revenue (*Amildars*) say, that it is impossible for the government to be defrauded, which appears to me incomprehensible. I have myself no doubt, partly from the division of crops, and partly from the power which they have of changing the cultivator's possessions, that the officers of revenue have very lucrative appointments. The rent on dry-field at present amounts to from 10 to 60 *Fanams* a plough, or at from $5\frac{3}{4}$ to $34\frac{1}{4}$ pence an acre. That which I measured was an exceedingly poor stony field, and paid 34 *Fanams* a year, or $18\frac{1}{2}$ pence an acre.

The *Sultan's* management of the revenue.

The rent paid to *Tippoo* did not amount to one half of the valuation; for all parties united to defraud him, each getting a share. Although, during the *Sultan's* government, the rent fell thus light on the cultivators, they were, even by their own account, much worse off than they are at present; for there was no end to the arbitrary exactions which the lord lieutenants (*Asophs*) levied. The most intolerable of these, however, arose from the contribution which the *Sultan* demanded, to make good the sum that he was bound to pay to Lord Cornwallis by the treaty of *Seringapatam*. *Tippoo* ordered three millions (*crores*) to be collected; and the people here say, that by paying their share of this they would not have been distressed. In place of three *crores*, however, ten were collected, and of these seven were embezzled by the officers of revenue. These again were obliged to bribe their superiors; but *Tippoo* did not molest them, and many of the *Bráhmans* are said still to possess very considerable sums which were then accumulated. *Hyder* and his son acted on totally different plans. The father protected the cultivator, but was very apt to squeeze his officers in an arbitrary manner. The *Sultan* seldom molested his officers, but he cared not how much they fleeced the people. He, however, was probably ignorant of the lengths to which they went, especially after his unsuccessful war with Lord Cornwallis; from which period he was almost inaccessible to his subjects, and continued to brood over his misfortunes in sullen solitude.

Size of farms.

Four ploughs are here reckoned a large stock. Two ploughs are common; but by far the greater part of the farmers have one only; and many, as is indeed usual in every part of the country, are necessitated to unite their stocks before they can furnish two oxen, and the miserable implements which are necessary to accompany one plough. The extent of land cultivated here by one plough is greater that usual in India; for it requires little labour. I am persuaded, however, that in every part of *Karnata* a plough fully wrought, is capable of labouring at least thirteen acres of dry field; from six to seven acres may be taken as the average extent of a plough of watered-land. Each plough requires two oxen and one man, and additional women must be occasionally hired.

At *Heriuru* there are no slaves. Most of the labour is performed by the families of the tenants; but a few hire men servants by the year, and in seed time and harvest employ women by the week. A man gets from 50 to 70 *Fanams* a year, or from 1*l.* 11*s.* 2½*d.* to 2*l.* 3*s.* 8¼*d.* This is paid entirely in money, without any addition, except that, for himself and family, he generally obtains room in his master's house. Women get one *Fanam*, or 7½*d.* a week. Advance to servants are not common, and of course they are entirely free. 1801. April 19. Wages and servants.

The hours of labour in this country are from eight in the morning until noon, and from two o'clock till sunset; in all, about eight hours. The labourers get up about sun rise; but an hour is spent in their evacuations, in which all *Hindus* are excessively tardy; and another hour is spent in ablutions, prayer, marking their faces with consecrated ashes or clay, and in eating their breakfast. They eat three times a day, their principal meal being at noon. Hours of labour.

The most common article of cultivation is the *Holcus spicatus* of Linnæus, called by the natives *Sujjay*, or *Cambu*. It is generally accompanied by *Huruli* (*Dolichos biflorus.*) The custom here is, to cultivate the *Cambu* fields three years, and then to give them a fallow of the same duration; and while thus allowed to rest, they pay no rent. Each man's farm is therefore divided into two portions; one of which is cultivated, and the other fallow. Other dry grains are also sown on the *Cambu* field, and that without any attention to rotation. The only manure that is given is, for some nights, to make a flock of sheep sleep on the field. They are not folded, but merely gathered together by the shepherds and their dogs. After the first heavy rain in the two months following the vernal equinox, the *Cambu* field is ploughed, lengthwise and across, with two oxen in the yoke. After the next rain this is repeated. It must be observed that the rain must be of considerable duration; for in this arid soil and season the heaviest shower produces no sensible effect. After the second ploughing, the field is hoed with a *Heç Cuntay* drawn by four oxen. When the rainy season has fairly commenced, which happens about the summer solstice, the seed is sown with the drill, the *Cambu* being put in the *Curigy*, and the *Huruli* in the *Sudiky*. After having been sown one month, the field is weeded with the *Edday Cuntay*; and after an interval of eight days this is again repeated. The *Cambu* in five months ripens; the *Huruli* is a month later. Thirty-two *Seers* of *Cambu*, and six *Seers* of *Huruli*, are sown on one plough of land, and produce about 1280 *Seers* of the former, and 128 of the latter. The produce is therefore worth 80 *Fanams* for *Sujjay*, and 8 for *Huruli*; in all, 88. The seed and rent may on an average amount to about 36 *Fanams*, or about 40 *per cent.* of the gross produce. An acre of ground, at this rate, will produce nearly four bushels of *Cambu*, and $\frac{1}{16}$ of a bushel of *Huruli*; a strong proof of a miserable soil and wretched cultivation, yet the former is allowed to produce 40, and the latter above 21 fold; but I have Sujjay.

1801. April 19. already pointed out the fallacy of judging, concerning the productiveness of either soil or crop, by means of increase on the seed that has been sown.

Cotton. In a few places of this district (*Talur*) cotton is put in the (*Acadies*) rows between the drills of *Cambu*; but it requires a much richer soil than is to be usually found, and is thought to exhaust the land. The quantity raised in the country is not equal to the consumption. In a few places *Harulu*, or *Ricinus*, is put in the drills with *Cambu*.

Navonay. The next most considerable crop is *Navonay*, or the *Panicum italicum*. The field is ploughed twice in the month following the summer solstice, and at the end of the month it is hoed with the *Heg Cuntay*. In the following month, after a heavy rain, the seed is sown with the drill; and a month afterwards the weeds are removed by the *Edday Cuntay*. In three months it ripens, but it is a very uncertain crop; for it is liable to be spoiled by either too much or too little rain. A farmer who has a plough, and sows 32 *Seers* of *Sujjay*, commonly sows 2 *Seers* of *Navonay*, and, when the season is favorable, will get 3 *Colagas*, or 96 seeds; which, after deducting the seed, is worth $11\frac{3}{4}$ *Fanams*. This, I suspect, ought to be considered as a part of what the plough of land produces, and will make its gross amount 100 *Fanams*; from which is to be deducted less than $36\frac{1}{2}$ *Fanams* for seed and rent. The gross value of the produce of an acre of poor land, such as that I measured, by this estimate, will be about 4*s.* 10*d.* By the people here, the straw of *Navonay* is reckoned better fodder than that of *Cambu*, which is indeed exceedingly coarse. The grain of the *Cambu* is reckoned the most nourishing food for labouring men; while that of *Navonay* is preferred by the *Bráhmans*, and others, who are not under the necessity of performing hard work.

With respect to quantity, the other crops are very trifling; but, as each man cultivates some of them, at seasons when his stock would be otherwise idle, they are of importance, as reducing the price of labour. The most considerable of them is that of *Huruli*,

Horse-gram, or Dolichos biflorus. or *Horse-gram*, which *Purnea* has lately encouraged, in order to procure a plentiful supply for the cavalry that are stationed towards the *Marattah* frontier. The land employed for the purpose is the poorest in the country, and gets no manure. In the second month after the autumnal equinox, the field is once ploughed. About the beginning of the following month, it is ploughed again, and the seed is dropped into the furrows, after the plough, by a sharp pointed *bamboo* (*Sudiky*). It is then covered by a hoeing with the *Heg Cuntay*. The seed is sown twice as thick as that of *Cambu*, ripens in three months, and produces five fold; one half of which goes to the public revenue. The produce of an extent of land equal to one plough is therefore worth twenty *Fanams*; of which ten go for rent, two for seed, and eight to the farmer. The produce of an acre is about one bushel, and is worth less than a shilling.

1801. April 19. Harica.

On the same kind of soil, and in the year following the *Horse-gram*, is sown *Harica*, or the *Paspalum frumentaceum*, Roxb. MSS. In the second month after the vernal equinox, the field is ploughed, and the seed is dropped into the furrow, after the plough, with the sharp bamboo, and covered with the *Bolu Cuntay*. Three months afterwards, the weeds are removed by the *Edday Cuntay*. It requires much rain, and eight months elapse before it ripens. Four *Seers* of seed produce two *Woculas*; but I do not know the extent of ground required. The rent is ten *Fanams* for the plough of land.

In the bottoms of reservoirs, when they are dry, are sown wheat, *Ellu*, or *Sesamum*, and *Callay*, or *Cicer arietinum*. For rent the government takes one third part of the produce.

Rice-la

The quantity of rice-land in the *Chatrakal* principality is very small. In this district (*Taluc*), eight or ten villages are partly employed in this kind of agriculture; and in favourable years they have two crops from the same field, which is not the case any where to the westward. There were formerly five reservoirs. Two of them have lately been put into repair; one is now undergoing that operation; and money has been allotted for the two others. There are many places in which new ones might be formed with great advantage, were there stock sufficient to cultivate the lands which they would irrigate; but, in the present desolate state of the country, all expense bestowed on erecting new reservoirs would be fruitless. In the principality there are a few *Betel-nut* gardens, which are cultivated in the same manner as those to the southward, which I have already described; but the soil here is little favourable for the *Areca*. Having formerly given a full account of the cultivation of rice in the neighbouring *Taluc* of *Sira*, it would in this place be superfluous to say any thing on the subject. The revenue is paid by a division of the crop.

Cattle and manure.

The village cattle during the whole year are kept in the house, but are not littered. Their dung is collected in pits, and mixed with the ashes and other soil of the family. This manure is reserved for the rice-land. The dry field gets nothing, except the dung of the sheep, which, at any season, are herded on it at night. A flock of 500 in two nights are supposed to manure fully a plough of land. The farmers say, that when they have not sheep of their own they hire in the flocks of the shepherds, and give them two or three *Fanams* for manuring the plough of land. But this is denied by the shepherds, who allege, that, except permission to feed their flocks on the fallow lands, they get nothing; and this, I believe, is true. The want of attention to increase the quantity of manure is a gross defect in the agriculture of *Heriuru*, and may account for the wretched produce of its field.

Sheep

The *Donigars* in this neighbourhood keep a good many sheep. Some very rich families possess 1000 ewes, and 200 *Maycays*. Those in middling circumstances have four or five hundred ewes. Those who have from fifty to a hundred only are reckoned poor. The

1801. April. 19. wool is much coarser than at *Devana-giri*, nor will even the first shearing make fine *Cumblies*. The sheep are also smaller, and by the natives are reckoned inferior meat; but, whether or not this would coincide with European taste, I cannot say. This inferiority of the sheep and wool is attributed to the difference of soil; for all over the good sheep country, especially in the *Harapunya-hully* district, the *Eray*, or black soil, is prevalent. The natives, when asked how much it is usual for the meat or fat of a good sheep to weigh, stare with as much astonishment, probably, as that with which an English feeder would behold a butcher who was ignorant of what he considered to be so obvious a matter of enquiry. The sheep here are never driven into a house. In the rainy season they are taken to the wastes, and at night are secured by a fence of dry thorns, to keep off the tigers, which are very numerous among the bushes; for in the neighbouring forests there are no trees. In the dry season, the flocks are at night brought near the villages, and kept on the arable lands. Even there, according to the account of the shepherds, it is necessary to surround them with a fence of thorns. At this season the sheep must have drink twice a day, at noon and in the evening. In the rainy season they are never brought from the wilds; but folds are raised in the driest spots that can be found, and within the enclosure of thorns the shepherds erect for themselves small huts. The rent is on the same footing as at *Davana-giri*, and varies from 1 to 40 *Fanams*, or from 7½ pence to almost 25 shillings a year, according to the value of the flock. A flock containing, young and old, 500 sheep and 50 *Maycays*, requires four men and four dogs. These are able to drive away small animals of the feline kind, but have no arms that would enable them to attack the tiger or leopard. In the rainy season, the ewes are milked, and four of them give daily a *Seer*, which contains 72 cubical inches, or a little more than an ale quart. It sells for three *Dudus* a *Seer*, or 1½*d*. a quart. It is of the same value with cow's milk, and is made in a similar manner into *Ghee*, of which 22 *Rupees* weight requires eight *Seers* of milk; that is to say, to make one pound of butter, boiled into *Ghee*, requires 14¾ quarts of milk, ale measure. Cheese, for which ewe's milk is best fitted, is not known at *Heriuru*; nor any where, I believe, in India, except where it has been introduced by Europeans. The ewes breed once a year, but at all seasons indifferently. After having given five lambs, they are sold, and then bring from 2½ to 3 *Fanams*, or from 18¾ to 22½ pence. The males are emasculated at eighteen months old, and are sold from six to eighteen months afterwards. They are never fattened, except by the natural pasture; and it is only during the rainy season that they are in tolerable condition. In the dry season the fields produce scarcely a green herb. A wether at two years old brings five *Fanams*, and one three years old brings six *Fanams*, or double the price of a ewe. Lamb is never used. Seven *Fanams*, or 4*s*. 4½*d*., is reckoned a high price for a breeding ram; which ill-judged economy, probably,

contributes to render the breed worse than that of *Chatrakal.* 1801. April 19.

In the wastes of this part of the country some *Goalas* keep herds of breeding cows. They are never brought near the villages, and are exceedingly fierce; so that no dog nor stranger can with safety approach them, and the males attack and kill the tiger. To the *Goalas*, however, they are very tractable, and follow, like dogs, the man who leads the herd to pasture; while the other *Goalas* follow, to bring up the young, and the stragglers. Some of the cows are however so vicious, that no milk can be taken from them. They are all white, but are not fit for carriage, being too small. They are very hardy in the plough, or machine for raising water called *Capily*; but are rather unruly, even after emasculation; so that an ox of this breed does not bring more than 40 *Fanams*, 1*l.* 4*s.* 11½*d.*; while the more tractable, but weaker cattle, bred in the villages, sell for from 60 to 70 *Fanams*, or from 1*l.* 17*s.* 5¼*d.* to 2*l.* 3*s.* 8*d.* Bulls for breeding sell for from 50 to 80 *Fanams*, or from 1*l.* 11*s.* 2½*d.* to 2*l.* 9*s.* 11*d.* The forest males are emasculated when between two and three years old; and are sold off at four, when they are fit for labour. The cows have a calf once in two years, and generally breed five times. In the rainy season, a cow gives daily 1¼ *Seer*, or 90 cubical inches; and in the hot season ½ *Seer*, or 36 cubical inches. The village cows being kept in the house at night, and being fed there, give about two *Seers* a day, or rather more than two ale quarts. These forest cattle are always kept in herds, which contain about 150 young and old, male and female. A herd of this kind requires the attendance of five men. One man carries the milk home to the village, and brings provisions; for the women dare not approach. The other four men lead the herd to pasture. The calves are secured in a fold strongly defended by thorns; and on the outside of this the (*Goalas*) cowherds build a small hut, in which they sleep surrounded by the cattle, and defended by them from the tigers. When water or grass fail in one part of the country, they remove to another, and are under the grass renter (*Hulubundi*) of *Chatrakal*, exactly on the same footing with the (*Donigars*) shepherds. Cows.

In the wastes buffaloes are never kept; but in every house the women of the (*Goalas*) cowherds, and the people of the villages, keep at least one or two female buffaloes; for the greater part of the milk used in the country is procured from this kind of cattle. Each female ought daily to give three *Seers*, or a little more than three ale quarts. In the rainy season, this sells at three half-pence a quart, in the dry season at two-pence. The village cows and buffaloes are pregnant one year, and give milk the other. During the latter, the cow, besides supporting her calf, should give 30 *Seers* of butter, or 22½ of *Ghee*, worth about 7½ *Fanams*; that is, she gives 16$\frac{68}{100}$ lb. of butter, or 12½ lb. of *Ghee*, worth 4*s.* 4½*d.* The female Buffaloes.

1801. April 19.

buffalo, besides rearing her calf, should give 35 *Seers* of butter, or 24¼ of *Ghee,* worth 8¾ *Fanams,* or ⅙ more than the cow. If this be accurate, the buffalo milk must be poorer than the cow's, as she gives one half more. The contrary opinion is commonly entertained.

Sickness among my servants.

Although the air and water of *Heriuru* are reckoned salutary, and my people were well accommodated, they did not recover their health, and all my stock of medicines had been long expended. My cook died rather unexpectedly. His fever never had been severe; the paroxysms had come on as usual in the morning, and, after it was over, had left him tolerably well; but in the evening he suddenly became insensible, was convulsed, and died in about an hour. He was a very thoughtless man, and much addicted to intoxication; those therefore, who fancy that all spirituous liquors are pernicious, especially in warm climates, will have no difficulty is accounting for his death:

Dicunt ah! nimio pocula dira mero.

But let me add,

Vobis si culpa est bilis, sua quemque sepuuntur
Fata; quod immeriti crimen habent cyathi.

For my own part, I am persuaded, that intoxication is much seldomer a cause of disease, than is commonly alleged; and that it chiefly proves injurious to the health of our seamen and soldiers in warm climates by making them imprudently expose themselves to other causes of sickness. The two persons in my service that are most subject to fevers, are my interpreter and painter, although from their situation in life they are exempted from all hardships; but from their caste they ought never to taste spirituous liquor, and are really sober men, avoiding not only liquor, but every intoxicating drug. At the same time, a man who takes care of my tents, although he is exposed to all weathers, and at times to much fatigue, enjoys perfect health, and probably keeps off the fever by copiously drinking spirituous liquors, to the use of which he is exceedingly addicted.

Superstitious fear of ghosts.

The arrival of a set of fresh men, and the consequent preparations for our departure, caused great joy among my people, notwithstanding their weak state. When the cook was taken ill, I had given orders to secure his effects for the benefit of his wife and children; but, on inspection after his death, no money could be found. Whether he had been plundered as soon as he became insensible, and that a guilty conscience occasioned fears among his companions, or whether the sudden manner of his death occasioned suspicions, I cannot say; but it was immediately believed that he would become a *Pysachi,* and all my people were filled with terror. The butler imagined, that the *Pysachi* appeared to him at night with a black silk handkerchief tied round its head, and gave

him instructions to take all the effects of the deceased to his family; upon this, the butler, being a man of courage, put his shoes at the right side of the door, which he considered to be a sure preventive against such intruders. Next night a cattle-driver, lying in all the agonies of nocturnal terror, saw the appearance of a dog enter, and smell round the place where the man had died; when, to his utter dismay, the spectre gradually grew larger and larger, and at length, having assumed the form of the cook, vanished with a shriek. The poor man had not the courage to use the slippers, but lay till morning in a kind of stupor. After this, even the minds of the *Sepoys* were appalled; and when I happened to be awake, I heard the sentries, by way of keeping up their courage, singing with a tremulous voice. 1801. April 19.

CHAPTER XIX.

JOURNEY FROM HERIURU TO SERINGAPATAM, THROUGH THE WESTERN AND MIDDLE PARTS OF THE MYSORE DOMINIONS.

1801. May 2. Appearance of the country.

MAY 2nd, 1801.—In the morning I went four cosses to *Ellady-caráy*, which is situated among the low hills running S. E. from *Chatrakal.* I saw no houses by the way; but some must have been near my route, as in different places I observed a few fields that were cultivated. I passed through several ruined villages. The appearance of the country is desolate, and it is said never to have been much better, in the memory of man. The soil is entirely poor stony land; and the naked rocks, in a state of decay, come frequently to the surface. The grass in many places is long, but at this season it is quite withered; and the only things green, that are visible, are a few wild date palms (*Elate sylvestris*), most of which are young. In moist places they grow spontaneously, and produce juice, which is often boiled into *Jagory.* The hills are of no considerable height, and among them there is much plain ground. By the natives this is considered as of very little use; but to me, much of it appears to be very capable of being rendered productive, whenever labourers and stock can be found.

Strata.

Between *Heriuru* and *Ellady-caray*, the *strata* are all nearly vertical, and of a slaty structure; but near the surface they are in such a state of decay, that it would be difficult to determine the species. Some appeared to be the same with the quartz impregnated with hornblende, that is found in the western *Ghats.* The layers or plates are in general very thin. There are no veins of quartz; but many of the *strata*, or rather thin plates, of which united the *strata* are composed, are fat quartz. These strata or beds of quartz are from a quarter of an inch to two feet in thickness, and are often stained of a livid colour, which I have no where else observed.

Slate.

The talcose argillite of *Heriuru* is here very common, and passes at times entirely into pure argillite, like the slate used for the roofs of houses. The transitions from the one stone to the other are so gradual, that it would be difficult to say where one ends, and the other begins. The slate here is grey, blue, and purple. All that I saw, being near the surface, was in a state of decay, and therefore useless; but that is the case on the surface of the best slate quarries in Scotland.

Iron was formerly smelted at *Ellady-caray* from black sand, 1801.
which was brought from a hill about two miles to the westward. May 2. Iron.
Much of the *vitreous scoriæ* remains where the furnaces stood; but the work has been abandoned these sixty years: the want of fewel is indeed a sufficient reason.

Ellady-caray is a small fort with about thirty houses. It has a plantation containing a few coco-nut palms; and a garden, containing *betel-leaf* and plantain trees, the verdure of which is very refreshing to the eye of a person coming from *Heriuru*. Near it there is a pond of dirty water full of reeds; but no tank, as its name would seem to imply. The cultivation consists of *Sujjay* (*Holcus spicatus*), *Harica* (*Paspalum frumentaceum, Roxb.*), *Navonay* (*Panicum italicum*), and *Huruli* (*Dolichos biflorus*).

This day has been cloudy and cool, with a threatening of rain. Weather.
The natives are persuaded, that it is the commencement of the two months of showery weather which precede the rainy season.

May 3d.—I went three short cosses to *Chica-bayli-caray;* that May 3.
is, the little hedge tank. The country is very hilly, as we crossed the highest part of the ridge coming from *Chatrakal*. The soil in general is very poor, and incapable of being rendered arable. I passed a ruined village surrounded by some good land, and a small fort with eight or ten houses. On the hills, there are a good many stunted trees.

Chica-bayli-caray is a small fort containing about forty houses. The fields around, although very stony, are arable; and between the stones the soil is good. Near it is a torrent, which comes from the hills, and runs toward the *Vedaváti*. It is dry in the hot season, but during the rains fills a large reservoir. On its bank is a fine coco-nut garden, where the trees grow to a larger size, are well loaded with fruit, and are allowed no water after having been transplanted, and having fairly taken root. The ground of the garden is ploughed every year, and produces *Horse-gram*, *Harica*, and other dry grains.

At *Chica-bayli-caray* is a furnace for melting iron ore, brought Iron smelted.
from a mine called *Cudera Canavay*, and which is supplied with charcoal from the hills to the westward. The ore is brought upon buffaloes and asses. It is in small slaty fragments, that are broken to pieces with a stone, and thus separated from much sand and earth. These small pieces, when fit for the furnace, are about the size of a hazel-nut. The operation ought to be performed at the mine, to lessen the expense of carriage; but the danger from tigers prevents the people from staying there longer than is absolutely necessary. The number of these ferocious animals having increased of late, has forced the people to relinquish a mine named *Buca Sagurda Canavay*, which is distant from the other one coss toward the N. W. Even *Cudera Canavay* has now become very dangerous, and in the course of the last year three people have been destroyed.

The manner of smelting and forging the iron is exactly similar to that used at *Doray-guda*, which I have described in the seventh

1801. May 3. chapter of this Journal, Vol I. p. 320, 323. At the two furnaces here are employed twenty-two men: nine to make charcoal, one to dig the ore, one to bring it from the hill (he is supplied by the proprietor with two buffaloes), one iron smith at the forging furnace, six bellows-men, and four hammer men. They can smelt twice a day; but the sickness of any one of the party stops the whole operation, and they meet also with frequent interruptions from holidays, and from heavy rain. On each occasion, some of the workmen remain entirely idle, and others take day labour from the farmers. Each smelting requires five baskets of prepared ore, one basket weighing 1172 *Dudus*, or rather more than 29½ lb. The smelting also requires ten baskets of charcoal; each weighing 514 *Dudus*, or $13\frac{83}{100}$ lb. The weight of the charcoal is therefore nearly equal to that of the ore; but the imperfection of the furnace renders the operation very incomplete. The metal is never liquified by the greatest heat which the natives can excite; the particles are only so softened as to adhere together, while the earthly matters are half vitrified. When the smelting succeeds properly, the mass of iron is forged into twenty-one plough-shares; when it succeeds ill, it yields only fifteen. Those pieces of iron weigh on an average 75 *Dudus*; so that the greatest produce of the ore is less than 27 *per cent.* of malleable iron; while the workmen sometimes are able to extract little more than 19 *per cent.*; but this is probably more owing to their want of skill, than to the poverty of the ore. The plough-share is worth ¼ *Fanam*; so that the iron sells for rather more than 7*s.* 3¾*d.* a hundred weight. The workmen are paid by a division of the iron. Every 42 plough-shares are thus distributed;

To the proprietor	...	...	11
To the 9 charcoal makers	...	...	9
To the iron-smith	...	...	3½
To the 4 hammer-men	...	...	7
To the 6 bellows-men	...	...	8
To the miner	...	...	1
To the buffalo driver	...	...	2½
			42

By this it would appear, that the expense of the fire amounts to $\frac{8}{42}$ parts of the whole value of the iron. The utmost that a common labourer can make at this work is 1½ penny a day; but should the operation succeed ill, he may get only $1\frac{35}{100}$ penny. This being very small wages, the workmen have probably concealed some parts of their profit. The expenses of the proprietors are as follow;

For bellows.	*Fanams* 100
For sacrifices	30
For tax to government	375
	505

For this, when the operations succeed, he is repaid by 45 days-working, and all the remainder of what he receives is clear profit; for the workmen build the huts and furnaces, which are exceedingly rude; and the iron-smith provides hammers, anvils, forceps, and every implement except the bellows. 1801. May 3.

There is here a small manufacture of horse-shoes and hob-nails. It contains three anvils, at each of which are employed five men; one who manages the iron, and who furnishes all the tools; one who manages the fire; one to work the bellows; one to hammer the iron, as it is held by the foreman; and one who finishes the nail by giving it a head The utmost that five men at one anvil can make in a day is 1200 nails. The four last mentioned workmen provide charocal. Their wages are, Nail makers.

To the foreman 2 *Jumshiry Pagodas* for the month of 30 working days, or rather less than 6½ pence a day.

To each of the other workmen 1 *Pagoda*, or 3⅛ pence a day. One half of their time is probably employed in preparing charcoal. 36,000 hob-nails cost for manufacturing 6 *Pagodas*, or almost 2*l.* 6*s.* 9¾*d.*

4th *May.*—I went one coss south, to see the mine at *Cudera Canavay*; and having examined it, I returned to *Chica-bayli-caray*. The road passes through a valley surrounded by low hills, and about half way there is a fortified village. At the bottom of the hill on which the mine is, there is a plain of a very good soil, which would be the most proper place of residence for the smelters. May 4. Appearance of the country.

On the road, I met with an image of *Hanumanta*, going on an annual visit that he makes to his master at a *temple* called *Rameswara.* From the neighbouring villages he was attended by all the better sort of inhabitants, male and female, young and old; the *Sivabhactars* excepted, who abominate both this idol and that of his master *Vishnu.* The people composing the train of the god were very irregular and disorderly; but they had collected together a number of flags, and insignia of honour, with every thing that could be found in the country capable of making a noise. The men who carried the idol said, that the god would rest himself at a *Mandapum* near *Rameswara,* and allow his followers to assemble, and form themselves into some order; after which he would visit the image of *Rama*; and, having returned to the *Mandapam,* he would sit in state; while for his amusement the people played before this building. The *Brahmans* would then sell them some victuals, which were consecrated by having been dressed in the temple, and offered to the god with the proper incantations (*Mantrams*). Having feasted on these, the image would return to his own temple, attended as on his outset. This is what is called a *Jatram*; and had the image been that of one of the great gods, it would have been carried in a *Rath,* or chariot; but for *Hanumunta* a litter is sufficient. A *Jatram* of *Hanumanta.*

Cudera Canavay, or the horse-hill, is a hummock about a hundred and fifty feet in perpendicular height. The north end is steepest, the slope toward the south being gentle. The east and west sides also Mine at *Cudera Canavay.*

1801. May 4. are pretty steep. The natives say, that *Doráy-guda* is about ten cosses to the S. E., and that there is a continued ridge of low hills extending the whole way between the two mines; but none of them contain ore.

The surface of *Cudera Canavay* is smooth, and is not interrupted by rocks. The soil is a poor red earth. I saw only one lump of *hœmatites*; and that, when compared with the fine masses lying on the surface of *Doray-guda*, is very poor, and ill-formed. The whole extent of the hill is not great, and the miners have contented themselves with digging the ore from the surface of the hill near its summit. No shaft nor pit having been made, I cannot form any estimate of the quantity of ore remaining. The mine appears to be much richer than that of *Doray*; for the quantity of barren stone intermixed with the ore is very small. This barren stone resembles the ore very much; and, no doubt, could the natives extract it, contains much iron. The specimen which I have brought away, has concentric layers somewhat like a log of wood. The superficial earth in most places is not above a foot thick. On digging into it, the miner comes to a mixture of ochres, earth, and ore, in a tabular form. This mixture sometimes extends in depth so far as has been wrought, which nowhere, that I saw, exceeded five or six feet. In other places the miner meets with large masses of ore, consisting of a number of plates united together like schistus. This by the miners is called black iron-stone. These masses have a tendency to divide into rhomboidal fragments. In other places, the ore is found in a number of flat pieces, divided by fissures into parallelograms, perhaps three inches long, two broad, and one thick. These fragments are placed in layers contiguous to one another; but they are separated by the slightest force, the fissures being filled up with reddish ochre. By the workmen this is called red-ore; and because it is taken out of the mine with the least trouble, it is most esteemed. All the kinds, when broken to small pieces, and rendered proper for the furnace, are quite the same. The manner of working is very simple. The miner forms a cut with a perpendicular surface, and throws all the rubbish down the declivity. He then continues cutting down from the hill, with his perpendicular surface, two or three feet in height. He works with a pick-axe, and cuts promiscuously through earth, stones, and ore. Having brought down a sufficient quantity, he rubs the fragments; and, having picked out the smaller pieces of ore, he throws down the hill all the earth, ochres, barren stone, and larger masses of ore; for the trouble of breaking any of these into lumps the size of the fist, is greater than that of cutting down more from the hill. I observed nothing like strata in the mine, and look upon the present shape assumed by the ore, as of very recent date. From the rubbish thrown down by former miners, which consists in a great measure of ferruginous particles, these have, I imagine, united into their present form; and the layers may be often observed intermixed with the roots of vegetables. Indeed, the process is probably now

regularly going on; and until the hill be entirely consumed, the mine may be continued to be wrought in the same manner as it is at present. 1801. May 4.

Strata near the mine.

On the N. E. side of the hill from which I ascended, the strata are in general vertical, and run from S. easterly to N. westerly. They are of quartz blended with hornblende, forming a hard, very tough, and sonorous stone intersected with fissures, but free from venigenous matters, and having a slaty structure, with plates from an inch to a foot in thickness. In other places, this stone is not vertical, but has only a dip toward the east. In this I frequently observed the quartz and hornblende disposed in alternate layers; that is to say, certain alternate thin portions of the quartz were less impregnated with the hornblende than those that intervened. From the disposition of these, the stone looked as if at one time it had been fluid, and had then undergone an undulating motion; for the different coloured portions were disposed somewhat like the colours on marbled paper, or like the fibres in a knot of timber. To give a proper idea of this would require a specimen ten feet in diameter; but even in the specimen which I brought away, it is observable, although that has suffered a considerable decay. I had no means of breaking a specimen from the centre of the rock.

Here I also observed a rock of a similar nature, but divided into rhomboidal fragments by wide fissures, some of which were empty, and others filled with veins of fat quartz, which must therefore be of later origin. This resembled the rock described in the seventh chapter of my Journal, Vol. I., p. 323 at *Malaiswara Pagoda*, near *Madana Mada*, which is about eight cosses from hence toward the S.E. There, however, the veins of quartz formed a complete network, involving the fragments of the original stone, which contained little or no hornblende.

May 5. Appearance of the country.

5th *May*.—I went to *Muteodu*, distant three cosses. On the way I passed through three little vallies, containing a good deal of rice-ground, with plantations of coco and *betel-nut* palms. These seemed to be very ruinous. In the first valley I passed a large fortified village, named *Cagala Cutty*, which on each side had a fine tank. Where I crossed the second valley, there were also two fine tanks, that supplied the rice-grounds of thirty villages, among which the most distinguished was called *Lacky hully*. These villages having been laid waste, the valley has since become so infested by tigers, that the few remaining inhabitants are daily deserting it. The third valley is the smallest.

Irrigation.

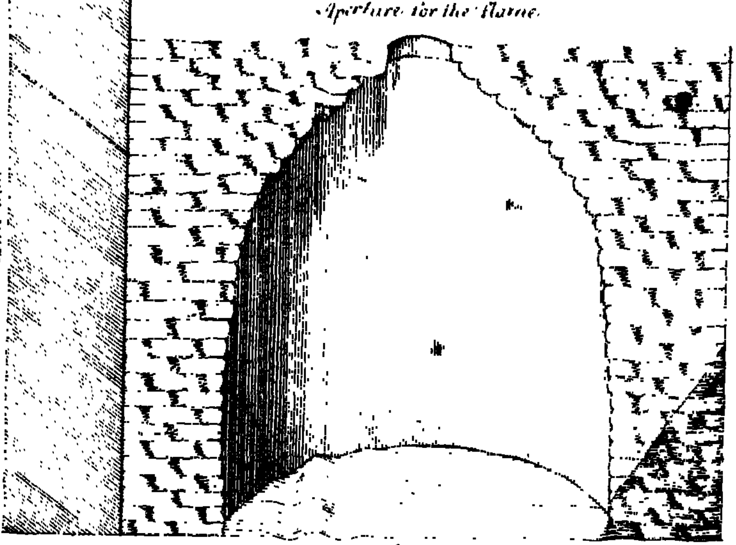
Muteodu is situated in a valley similar to the others, but much wider. Near it is a fine reservoir, which however at a moderate expense might be greatly improved. When the rainy season commences early, this tank supplies water for two crops of rice in the year, and never fails to afford a supply for one crop. The farmers do not commence cultivation until the *Tank* is full, as then they are secure from all accidents. The *Vedawáti* is distant one coss to the west.

1801. May 5. Its banks, according to the natives, afford many places where dams might be formed to great advantage. At a place called *Mari Canavay*, they say, that by building a mound between two hills 500 yards distant, an immense reservoir might be formed, which would convert a large proportion of the *Heriuru* district (*Taluc*) into rice-grounds. It would, however, inundate the present situation of many villages. At *Cangundy*, in the *Garuda giri* district, a dam might be constructed for 3000 *Pagodas*, that in three years would repay itself by the increase of revenue.

History of the *Muteodu Polygars*. In the reign of *Krishna Raya*, a native of *Lacky hully*, named *Ghiriuppa Nayaka*, was in the service of the king at *Anagundi*, and was a person of extraordinary strength and courage. An elephant, having broken loose, had got into the court-house, and could not be secured, until *Ghiriuppa* boldly seized on him by the tusks, and, having fastened a rope to his trunk, led him to the stables. As a reward for his intrepidity, the king created *Ghiriuppa Polygar* of his native town *Lacky hully*, with villages in the neighbourhood to the annual value of 9000 *Pagodas*, or 3120*l*. 8*s*. 4*d*. His tribute was 300 *Pagodas* a year, and he was bound to support 700 foot soldiers. In case of war, he left 300 of these in the country for its defence, and for the maintenance of order; and he was bound to join the king's standard with 400 men, whom he commanded in person. While on this service, he received five *Pagodas* a day, or about 31*s*. 3*d*. for his own subsistence; and the same sum for the subsistence of his whole corps. There have been twelve *Polygars* of this family; and *Haluppa Nayaka*, the present representative, from whom I have this account, is an elderly man. He says, that the nephew of *Ghiriuppa* removed the seat of government to *Muteodu*. When the *Chatrakal Polygars* became powerful, those of *Muteodu*, who, although they wear the *Linga*, are of the same family, submitted to the authority of their kinsmen. Their tribute was increased to 500 *Pagodas* a year, and they supported the former military establishment. *Haluppa* married a daughter of the last *Chatrakal Rájá;* but although she is still living, he has no children. When he observed the power of *Hyder* increasing, he was induced to assist that artful chief in the first siege of *Chatrakal*. After that was raised, his father-in-law, justly enraged at his conduct, attacked his country. In the month *Ashadha* of the year *Velumbi*, he laid siege to *Muteodu*, and three days afterwards took it by assault. Having plundered the town, he carried his rebellious son-in-law to *Chatrakal*, where he was kept in close confinement, but without ill usage, until he was released by *Hyder*, who took that city in *Magha* of the same year, or about the beginning of the year of our Lord 1778. *Haluppa*, although released from prison, was entirely neglected by *Hyder*, and never was restored to any part of his territory; a treatment that he richly merited. He retired at first to *Hagalawadi*; but twelve years ago he returned to *Muteodu*, where he occupies a hut, and lives in great poverty. His palace

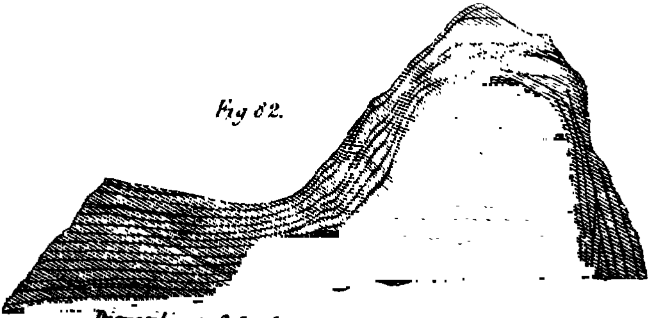
Fig 81

Vertical section of a glass furnace at Mutcedu



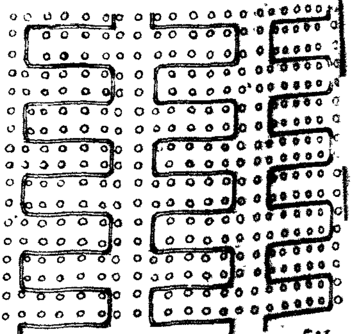
Crucible

Fig 82.



Disposition of the layers of ore within the matrix at Doda Rasky Mine.

Fig 85.



Plan of the channels in a sugar field at Kellamangalam

has in a great measure gone to ruin; but some portion of it has been lately repaired for a public office, and for the residence of the *Amildar*. 1801. May 5.

The fort of *Muteodu* never was strong: but in *Haluppa's* government it contained about 2000 houses, which are now reduced to 120. *Muteodu.*

The most remarkable thing about the place is a manufacture of the glass that is used for making the rings which are worn round the wrists of the native women, and are called *Ballay* in the language of *Karnata*, and *Bangri*, or *Bangadi*, in that of the Mussulmans. The glass is very coarse and opaque, and much more of it is made than is here wrought up into ornaments. Great quantities of it are bought by the *Bangri-makers* from the westward. It is of five colours; black, green, red, blue, and yellow: the first is in most demand. Glass manufactory.

All the materials for making the glass are found in the neighbourhood; but their value cannot be ascertained, as the glass-makers pay a rent for them, and collect them by means of their own workmen; so that they are never sold.

In the hot season, the *Soulu Munnu*, or *soda* in the form of a white efflorescence, is found in several places near this, on the surface of sandy fields. Little of it now remains; for there have been several showers, which have washed away the greater part. For the exclusive privilege of collecting it the glass-makers pay 48 *Ca. Pagodas* (14*l.* 19*s.* 8¾*d.*) They make it into cakes, in the same manner as the people of *Chena-pattana* do; a process that I have described in the third chapter of this Journal, Vol. I., p. 104 &c. The intention of making it into these cakes is probably to free it from earthy matter; but for making glass, this is perhaps no advantage, as the earth with which it is mixed is chiefly a quartzose sand. These cakes contain at least one half of their bulk of cow-dung, and from that cause are in fact inflammable. They are prepared for making glass by being burned, and of course afford an exceedingly impure alkali. It might be procured pure by lixiviation, and filtrating it through barrows of earth, as is usually done in India with culinary salt. The only objection to this is the scarcity of fuel, although much of the evaporation might be performed by the sun. *Soulu Munnu, or soda.*

The glass-maker's furnace here is rather better than that of *Chena-pattana*; but still it is extremely rude. The manufacturers say, that when the army of Lord Cornwallis left *Seringapatam*, they gathered with much pains a great number of broken bottles, which they found where he had encamped. These they thought a treasure; but, after having been at the expense of bringing the bottles to *Muteodu*, they found, that their furnace was not sufficiently strong to liquefy European glass. The bottles were then reduced to powder, and mixed with alkali; but these materials produced only an useless white mass. Our glass, therefore, is considered by them as useless as our cast iron; for neither of these substances are in a state upon which the fires of the natives have any effect. Glass maker's furnace very bad.

1801. May 5. Form of the furnace.

The furnaces are constructed in a high terrace, which is built against the inside of the town-wall, and are in form of a dome, or like an oven, eight feet in diameter, and about ten feet in height. The annexed section of one furnace (Plate XXXIII. Figure 81) will assist the reader to comprehend the description. The oven is not arched, but contracted above into a circular opening, about eighteen inches in diameter, by making the upper rows of stones project beyond those below them. At the bottom of the furnace, in the side opposite to the town-wall, is a small opening, through which the fuel is supplied. The crucibles are oblong, as in the figure, and would contain about $5\frac{1}{2}$ Winchester gallons. Having been filled with the materials, they are lowered down into the furnace by the aperture in the top, by which also the workmen descend. They first place a row of the crucibles all round the furnace, with their bottoms to the wall, and their mouths sloping inwards. In this position they are secured by a bed of clay, which covers the crucibles entirely, leaving their open mouths only exposed. Above this row another is placed in a similar manner, and then a third and a fourth. The furnaces vary in size, from such as can contain fifty crucibles thus disposed, to such as can contain twice that number. The fuel consists of small sticks, which having been gathered a year are quite dry. A quantity having been put in the bottom of the furnace, the workmen ascend, and some burning coals are thrown upon the fuel. By the opening below, fresh fuel is added night and day, until the time allowed for vitrifying the materials has expired. The fire is then allowed to burn out, and the furnace to cool. Afterwards the workmen descend, and take out the crucibles, which must be broken to get at their contents.

Frit, or *Bilizu.*

The first operation is to make a frit, called *Bilizu*. The materials for this are, powdered white fat quartz 1 part; and prepared soda, or *Soulu*, 6 parts: the crucibles are filled with these mixed; and the fire is kept up five days. Every crucible gives a *Maund* of 40 *Cucha Seers*, or $24\frac{1}{4}$ lb. of *Bilizu*.

Black glass.

To make the black glass: for every 40 crucibles, take prepared soda 1 *Candy*, or $18\frac{08}{100}$ bushels; and powdered frit $\frac{1}{4}$ *Candy*, or $4\frac{52}{100}$ bushels: mix them, and fill the crucibles. The crucibles having been put into the furnace, a fire is kept up for eight days and nights; so that the flame rises three cubits above the aperture at the top of the dome. Each crucible gives a *Maund*, or $24\frac{1}{4}$ pounds of glass, of a black, or rather of an intensely dark grass-green colour. It sells for 4 *Fanams* the *Maund*, or 11*s.* $6\frac{1}{4}$*d.* a cwt. It is evident from this, that only $\frac{2}{37}$ of the materials employed are silicious earth; the remainder is the impure salt called prepared *Soulu*. During the operation, part of this is dissipated; and part of it forms on the surface of the glass a pure white crust, an inch in thickness. This is used by the inhabitants for culinary salt, but in fact it is chiefly soda.

To make green glass: for 40 crucibles, take 1 *Candaca*, or $18\frac{08}{100}$ bushels of prepared *Soulu*; 5 *Colagas*, or $4\frac{52}{100}$ bushels of powdered frit; 1 *Maund*, or $24\frac{1}{2}$ lb. of the powder of an ore called *Kemudu*; 4 *Seers*, or $2\frac{3}{10}$lb. of an ore called *Cari-cullu*; and 24 *Seers*, or $13\frac{9}{10}$ lb. of calcined copper reduced to powder. These materials having been mixed and put into the crucibles, these are properly disposed in the furnace, and a fire is kept up for nine days and nine nights. For the first five days the fuel is added slowly, so that the flame just rises to the aperture; and afterwards it is not necessary to occasion quite so great a heat as for the frit, or black glass. The copper is calcined by burning it, on the fire-place in the bottom of the furnace, during the whole nine days that are required to make this glass. Each crucible produces 1 *Maund* and 12 *Seers* of green glass, which sells at 6 *Fanams* the *Maund*, or 17*s.* $3\frac{1}{4}$*d.* a cwt. The saline crust, formed on the surface of this glass, is considered by the natives as unfit for eating. 1801. May 5. Green glass.

To make the red glass: for every 40 crucibles, take the same quantity of prepared *Soulu*, and frit, together with 5 *Maunds*, or $121\frac{1}{4}$ lb. of powdered *Kemudu*. For fifteen days and nights these must be fused with a moderate fire. Each crucible gives $1\frac{1}{4}$ *Maund* of glass, which sells for 6 *Fanams* a *Maund*, or 17*s.* $3\frac{1}{4}$*d.* a hundred weight. Red glass

To make the blue glass: for every 40 crucibles, take the same quantity of prepared soda, and powdered frit, as for the others. To these add 24 *Seers*, or $13\frac{9}{10}$ lb. of calcined copper, and an equal quantity of powdered *Cari-cullu*. For fifteen days and nights these materials also must be burned, with a moderate fire. Formerly, the workmen used to put in only twelve *Seers* of calcined copper, with an equal quantity of a blue substance called *Runga*. The merchant, however, who supplied them with this article, having died, they have not for some time past procured any, and have been obliged to make up the deficiency by a double proportion of copper. What the *Runga* is, I cannot say. The natives know that it is not blue vitriol: it may perhaps be smalts. Blue glass.

To make *Hulledi*, or yellow glass: for every 40 crucibles, take the usual quantity of prepared soda; add to it 5 *Colagas*, or $4\frac{52}{100}$ bushels of native soda, from which all the small stones have been picked, but which of course contains a good deal of sand. For fifteen days these are burned with a slow fire. Each crucible gives a *Maund* of a wax-coloured glass, which sells for four *Fanams* a *Maund*, or 11*s.* $6\frac{1}{4}$*d.* a cwt. When this glass is wrought up into rings (*Bangris*), it receives a bright yellow colour by enamelling it with the melted *calces* of the following metals: 5 parts of lead, and one of tin are calcined together. Then one part of *Sotu*, or zinc, is calcined in a separate crucible. The two *calces* are then mixed, and farther calcined, until they begin to adhere together. They are then powdered in a mortar. When the (*Bangri*) ring-maker is at work, he melts some of this powder; and, while the ring is hot, Yellow glass.

1801. with an iron rod he applies a little of the powder to the surface of the glass.

May 6. Weather. 6th *May*.—In the evening of the 5th there was much thunder, with heavy squalls of wind from every quarter of the compass, and some severe showers of rain. The thunder continued all night, and the morning looked so threatening that I did not set out till after breakfast. The weather, however, has now become so cool, that I did not feel the least inconvenience from being all day in the open air.

I had intended going to *Hosso-durga*, and had sent my spare tents to that place; but, finding it necessary to look after the mines, which produce the ores called *Kemodu* and *Cari-cullu*, I was obliged to alter my plan. Neither could I get any accurate information concerning the situation of these mines; some of those even, who were employed in bringing the ore, called them two cosses distant, while others stated their distance at three times as much..

Mine of *Cari-cullu*. I went first in search of the *Cari-cullu*, and proceeded on the way by which I came yesterday, till I reached the small valley nearest *Muteodu*, distant from thence about ¾ of a coss, or two miles. Here I passed a small village named *Sida Gondana hully*, and came to a low hill, which is called *Malaya Maluppa*, after a temple dedicated to *Siva*. This hill forms the eastern boundary of the valley, and is of no considerable height. The mine of *Cari-cullu* is on its ascent, and is readily discernible from a number of bluish-black stones, that lie on the surface of the ground. No excavation has been made. The *Cari-cullu* is found, in detached masses, on the surface, mixed with the stones. These stones are often so much tinged by the metal, as hardly to be distinguishable from it; but are known by being broken, when their stony nature appears evident. Some of them, when broken, appear internally to have undergone little change, and are evidently fat white quartz; the appearance of the internal parts of others has been so much altered, that had I not observed them in all intermediate gradations, I should never have supposed them to have been of a quartzy nature. The masses of stone are much more numerous than those of the *Cari-cullu*, owing probably to the quantity of the last that has been removed from the surface. Deeper in the earth it is probably found in a great proportion, but there has been no occasion to make any experiment by digging. The extent of ground which the mine occupies may be about 200 yards square. The *Cari-cullu* literally signifies the black stone. It is found in masses about the size of the fist, and has a very strong resemblance to the black ore of *Manganese*. By the usual process, however, for discovering the *calx* of that metal, I have not been able to obtain any; nor indeed any thing else, except a brown *calx* of iron. The ore however, when heated, readily gives out a considerable quantity of *oxygene*.

1801. May 6. *Strata* near the mine.

Immediately N. W. from the mine, and on the declivity of the same hill, is a singular *stratum* of rock. It has every appearance of a rock that has formed the channel of a river, being water-worn, and excavated into round pits or pots, exactly like the rocks on which a rapid stream has long acted. This is an appearance, concerning which any one, who has been accustomed to a mountainous, well-watered country, can hardly be mistaken; yet, as the rock is situated on the declivity of a hill, and has a valley immediately below it, and parallel to its course, it is impossible, without a total change having taken place in the face of the country, that it could have formed the bottom of a river. At present there is no stream in the valley. This rock runs nearly north and south, and is quite vertical. It is a *Sienite*; sometimes of a homogeneous grey colour, and at other times composed of alternate grey and white layers, which last consist of the quartz and felspar entirely. These layers are of very various thicknesses, and are sometimes straight, and sometimes disposed in swirls, like a knot of timber. Although it has the appearance of having suffered much decay, this stone possesses a very high degree of toughness.

Appearance of the country.

Having examined this mine, I returned almost to *Muteodu*, and then proceeded south to a small village, named *Cadu-caray*, three cosses distant. The country is not hilly, and in most places is fit for the plough; but almost the whole is waste. I saw only one village, named *Chica Taycu-lawati*; but I passed several small collections of huts belonging to *Goalaru*, or keepers of cattle. Toward the east was a range of hills, running from *Chatrakal* to *Chica Nayakana hully*. Toward the west is a level country, interspersed with a few low detached hills. On the most remarkable of these is placed *Hosso-durga*, or the new castle.

Strata.

The soil is in general poor, and the rocky *strata* of frequently come to view. Among these are very extensive *strata* of quartz, and of quartz intermixed with felspar of a white colour. Intermixed with these are *strata* of white quartz, and black mica, disposed in alternate layers, firmly united, and forming a very hard stone.

Budihalu Taluc.

Cadu-caray is in *Budihalu* district, and is under the management of the *Amildar* of *Muteodu*, although it does not form a part of the *Chatrakal* principality. The *Amildar*, therefore, accounts to the *Subadar* of *Chatrakal* for *Muteodu*, and to the *Dewan* of *Mysore* for *Budihalu*. In the time of the kings of *Anagunda* the districts of *Budihalu* formed the territory of a *Polygar*, named *Shirmia Nayaka*, who was of the *Goala* caste. It was then valued at 12,000 C. *Cagodas*, or 3744*l.* 9*s.* 7*d.* a year; but of this he paid one half as tribute. After the Mussulmans had taken *Sira* from the *Ratna-giri Polygars*, and had made it the residence of a *Nabob*, or *Subadar*, they seized on *Budihalu*, and soon afterwards it was given in *Jaghire* to *Ismael Mummud Khan*; he transmitted it to his son of the same name; from whom it was taken by *Hyder*, after he had conquered *Sira*. *Ismael Mummud Khan* raised the revenue to 20,000 *Pagodas* a year

1801. May 6. (6240*l.* 15*s.* 11¾*d*). Owing to a want of inhabitants, *Purnea* reduced the revenue to 15,000 *Pagodas*; but were there p cultivators, the former revenue, it is said, would not bear them. North from *Cadu-caray* is a small river, that never dries, and is named *Mavana Canavay holay.* It comes from the to the westward; and after filling two *tanks*, runs into the *V* at *Niruvugullu*.

May 7. Mines on *Doda Rashy Guda*. Smelting of the ore. 7th *May*—I went in the morning to examine the mine of and another of iron, concerning which I had received on the preceding evening. The ore is smelted here in th manner as at *Chicabayli-caray*. When the process fails, a porous mass is obtained, which has a greater resemblance to our iron than any thing that I have seen produced in India. is useful in a furnace of lower power, and gives an iron softer the common kind; and from this soft iron are usually formed hoes, and other digging instruments of the natives.

Appearance of the hill. *Doda Rashy Guda,* or great heap hill, which contains the is a peak about three hundred feet in height, and a mile in that forms part of a ridge running nearly north and south, east from *Cadu-caray*. Between the mine and this village is ridge, on the northern extremity of which is a temple dedica *Ranga* and named *Mavana Canavay,* from which the rivulet so has its source.

Strata. As I ascended this nearest ridge, the first rock which I met an earthy quartz, or hornstone, divided by fissures in all directio and having some of these fissures filled with viens of This rock is not vertical, but dips much toward the east. on, the common rock consists of alternate parallel layers, united, of white arid quartz, and of browniron shot quartz, stone. These layers are sometimes plain, and at others dispos swirls; and as the stone in decay, by the attrition of its longitud angles, has a great tendency to assume a cylindrical always breaks in masses truncated at right angles to the layers, often found in pieces which have a strong resemblance to petri wood. The stone does not break regularly in the direction of layers, which are disposed in the same line with the strata. Th are vertical, and run nearly north and south. I am by no m sure of the nature of the brown part of this stone. It possibly be hornblende overcharged with iron; and the *Sienite* yesterday nearly in the direction of its strata, strongly confirms opinion.

Kemodu. Between the two ridges I came to the channel of a rivulet, na *Aladi-holay,* which at present is quite dry. Here I found the whence the glass-makers procure the ore called *Kemodu.* three quarters of a mile the bed of the rivulet is filled of a steel-grey colour. Many of these are the iron *Kemodu.* It is in water-worn masses, from the size of a man's downwards, and possesses the external characters of the grey

of *Manganese.* When powdered, it is attracted by the magnet. Intermixed with the *Kemodu* are other masses of a similar appearance, but which are useless. On breaking these, they are found to be in all the intermediate stages of maturation, from the common rock before described, to almost perfect ore. 1801. May 7.

On ascending the eastern bank of the rivulet, beyond the mine of *Kemodu,* I came to a conical peak on the eastern ridge; and observed, that all the stones on its side were stained with the steel grey of that ore. I saw none perfect on it; but on breaking the stones I found them in all stages, from the rude rock, to a state approaching to maturity. Indeed, many grains of pure *Kemodu* were very discernible, imbedded thickly in the substance of these stones. Source of the *Kemodu.*

Immediately south from this, is the peak called *Doda Rashy Guda,* whence the iron ore which supplies the forges is procured. This ore is quite the same with the black kind at *Cudera Canavay,* but it is disposed in a different manner. It is imbedded in large irregular cavities of the barren stone, or matrix. This consists of plates that are separable without much difficulty, and which, I have no doubt, are the brown layers of the common stone of the hill separated by the white ones having been corroded by iron. It is, no doubt, a primeval rock; and its strata may be traced running in the direction of the meridian, and in general vertically. The ore is similarly composed of plates; and fibers of the roots of plants are found to have penetrated into the interstices; but this, I am inclined to think, has happened after the surface has been exposed by the miners. I also suppose, that the ore has once been the common stone of the hill, and has afterwards been more and more impregnated with iron by some process unknown to us; in the same manner as, I suppose, has taken place in the ore called *Kemodu.* The various gradations from the perfect stone to the perfect ore is the circumstance that induces me to form this opinion. A portion of the rock, having been cut down with a vertical smooth face about three feet deep, presented an appearance similar to that in Plate XXXIII. Fig. 82. The central parts are of the ore, and contain the roots of plants between their plates. The upper layers are of the barren matrix. I brought away, as a specimen, the upper extremity of the ore, with part of the matrix adhering. Owing to the nature of the mine, the manner of working it is somewhat different from that used at *Cudera Canavay,* and the workmen are forced to dig the ore from under the caverns of the matrix. I no where saw that they had ventured in farther than ten or twelve feet; so that I cannot say, whether or not the internal parts of the hill contain any veins, or rather beds, of ore. Openings have been made in various places for about a quarter of a mile in length, which seems to be the extent of the mine. Common iron ore.

Having examined *Doda Rashy,* I descended by the banks of the *Aladi-holay,* till it came opposite to the temple of *Ranga,* where it joins the *Mavana Canavay.* Here both streams pass between the Fine reservoir in ruins.

1801. May 7. hill on which the temple stands, and one placed at no great distance to the north. The opening has been filled up by mounds which, so long as it remained entire, formed a fine reservoir that watered a hundred *Candacas* of rice-land. The mound has long ago been broken; and it is said, that to repair it would cost three thousand *Pagodas*, or 936*l.* 2*s.* 4½*d.* As *Paddy*, when very cheap, sells at one *Pagoda* a *Candaca*, and as the government receives one half of the produce, which is here on an average forty seeds, even allowing that there should be only one crop in the year, the expense of rebuilding the tank would be repaid by less than two years rent.

Effects of low and high rent. All over the *Chatrakal* principality, of which *Hosso-durga* forms a part, the rice crop is of little importance; the rent is no higher than that for dry grains, and little labour has been bestowed on irrigation. Here the rent is high, being one half, or even more, of the produce; the fields are very productive, and many excellent *Tanks* have been constructed. Most of these were made during the government of the *Shirmia* family.

Unhealthiness of the climate. From this ruinous *Tank* I went about two cosses to a fortified village, containing about forty houses, and called *Doda Tayculawati*. It is situated in the open country of the *Budihalu* district. The country is at present extremely unhealthy, even to those born in it. Almost every family has some person ill with the fever; and no less than eight persons in the house of the *Amildar* of *Budihalu* are now labouring under that disorder. The natives say, that the fever will stop immediately after the commencement of the rainy season. This year has been uncommonly unhealthy, owing to its having been unusually hot.

Wild date. In every part of the *Budihalu* district the wild date (*Elate sylvestris*) is very common, but is of little use except for fuel. The present number of inhabitants cannot consume a hundredth part of the juice that could be extracted from it. This tree might be a source of considerable advantage, could a good spirit be extracted from its *Jagory*, of which I think there is little doubt; but from the wretched stills of the natives this can never be expected.

May 8. Appearance of the country. 8th *May.*—I went three cosses to *Belluguru*, and by the way passed two *Tanks* and villages. All the country near the road is level enough for the plough, and clear from trees; but, the army of *Purseram Bow* having passed this way, very little of it is cultivated. Some of the soil is rocky; a good deal is rich land; but by far the greater part is poor gravelly land; fit enough, however, for raising *Huruli* (*Dolichos biflorus*), *Shamay* (*Panicum miliare*, E. M.), and other such crops.

Belluguru. *Belluguru* is a small fortified village with 150 houses. It suffered less than usual from the *Marattahs*, as before the invasion of *Purseram* its houses amounted to only two hundred. It is a part of the *Garuda-giri* district, which has long formed a part of the dominions of the *Mysore* family. Near it is a very large reservoir.

Owing to the mud deposited by the water, these *Tanks* fill gradually at the bottom; so that once in three or four years this mud must either be removed, or an addition must be made to the height of the bank; otherwise the reservoir becomes useless. The mud being an excellent manure for the neighbouring dry lands, as much of it as possible should be taken away, and spread on them. In other respects, the raising of the bank is the most advantageous manner of repairing a *Tank*, as it requires the least outlay of money. It offers also another advantage. If the sluice, through which the water is let out to irrigate the fields, were always raised to a level with the mud in the bottom of the *Tank*, as that was deposited, the extent of ground, which the *Tank* could irrigate, would always increase. This, it is true, would be attended with a considerable expense, and is never practised; so, in order that the plug which shuts the sluice may be kept clear, there is often a necessity of sinking a well ten or twelve feet in depth. The *Tank* here receives a stream forced by a dam from a rivulet, that comes from *Garuda-giri*, and which afterwards falls into a *Tank* called *Belallu Samudra*, which is one coss and a half N.W. from *Belluguru*. 1801. May 8. Reservoir.

In this district, and in the neighbouring one of *Budihalu*, all the rice-ground is cultivated as sprouted-seed. The seed, the natives here say, is sown equally thick in the two districts; yet in *Budihalu* the land often produces sixty fold, and the ordinary crop is forty seeds; while in this district of *Garuda-giri*, the usual produce is twenty seeds. I measured a field, said to sow three *Colagas* of seed, or 2673 cubical inches. It contained 46,636 square feet. The acre, therefore, requires $1\frac{1661}{10000}$ bushel for seed, and produces here, in an ordinary crop, almost $23\frac{1}{4}$ bushels of rough rice; while in *Budihalu* it produces twice, or even three times as much. In the course of one year, there are frequently from the same field two crops of rice. The grain in the husk is worth one *Bahadery Pagoda* a *Candaca*, or $11\frac{66}{100}$ pence a bushel. The produce of one crop is, therefore, worth about a guinea an acre. Rice-ground.

9th *May*.—In the evening and night there was much loud thunder, with heavy rain from the southward, but little wind. I went four cosses to *Garuda-giri*, or the hill of *Garuda*, the eagle on which *Vishnu* rides. It is often pronounced in the oblique case *Garudana-giri*, which, by the Mussulmans, is usually corrupted to *Gurruna-giri*; and in a map which I received, I find it called *Gurgan-droog*. The country through which I passed is flat, but the soil is rather poor. Almost the whole of it, however, is capable of being cultivated; but by the *Marattah* invasion it has been quite depopulated; and I passed only two small villages. May 9. Face of the country.

At one of these villages, named *Ana-giri*, in the *Yagati Taluc*, I met the *Amildar*. He says, that his district produces an annual revenue of 10,000 *Pagodas*, or 3120*l*. 8*s*. 4*d*. It formerly made a part of the *Garuda-giri* district, and belonged to the *Mysore Rajas*. On the occasion of an invasion by the *Nizam*, *Hunnama Nayaka*, History of Yagati.

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1801. May 9 *Polygar* of *Terri-caray*, rendered such assistance to the (*Curtur*) sovereign of *Mysore*, that he was rewarded by a cession of the *Yagati Taluc*. *Hyder* deprived the *Terri-caray* family of all their territories, ordered them to reside at *Manzur-ábád*, and allowed them an annual pension of 2000 *Pagodas*, or 625*l.* 1*s.* 8*d.* They were by caste *Baydaru*, but of a different family from the *Rajas* of *Chatrakal*. During the reign of the *Sultan*, the present heir of the family enjoyed his pension. On the fall of *Seringapatam* he joined *Dundia*, and hanged three or four *Bráhmans*, who were his servants, and who refused to follow him in his mad enterprise. He afterwards repented, and, having submitted, was kept in irons for some time at *Seringapatam*. About two months ago, the *Amildar* says, this *Polygar* was liberated, and received the grant of a pension of thirty *Pagodas* a month.

Garuda-giri. *Garuda-giri* at one time belonged to the *Ikeri Polygars*, from whom it was conquered by the family of *Mysore*. These built the *Durga*, or fort, which occupies the highest part of a short abrupt ridge, that by a strong imagination has been fancied to resemble one of the rude images of *Garuda*. The suburb (*Petta*) stands at the foot of the hill, and is fortified. During the government of *Tippoo*, it was the nominal capital (*Kasba*) of an *Asoph*; but that officer resided at *Chica-Nayakana-hully*, which is twelve cosses distant. *Garuda-giri* never was a large place, and at present contains only about forty houses. The *Amildar* is a *Sivabhactar*; as are also, according to him, by far the greater part of the neighbouring people; but in the public accompts, to be hereafter mentioned, very few of this sect are reported.

In all the country between this and *Seringapatam*, *Ragy* is the most common crop; and the cultivation of that grain prevails all the way towards *Baba Bodeen's* hils, where the rice and *betel-nut* country begins. The rice-ground, according to the *Amildar*, produces on an average twenty fold.

Shepherds. In this part of the country there are many sheep, but few black cattle. The shepherds and their families live with their flocks. The men wrap themselves in a blanket, and sleep in the open air among the sheep. The women and children sleep under hemispherical baskets, about six feet in diameter, and wrought with leaves so as to turn the rain. At one side a small hole is left open, through which the poor creatures can creep, and this is always turned to leeward, there being nothing to cover it. I have not in any other country seen a habitation so very wretched.

Houses. Throughout the *Chatrakal* principality the roofs of the houses are terraced with mud, and this custom also commonly prevails over the eastern parts of *Mysore*, *Sira*, and *Colar*; but the fashion here is pent roofs. Although in every part of *Karnata* the materials for building huts are excellent, yet those with pent, and those with terraced roofs, look equally mean and rugged.

1801. May 9. Lac and sandal.

In a hill lying south from *Garuda-giri*, and called *Hiricul*, there are found both sandal-wood and lac. Owing to the increasing number of tigers, the collecting of this last has of late been given up.

May 10. Appearance of the country.

10th *May*.—I went two long cosses to *Banawara*. The country through which I passed is scarcely any where too steep for the plough; but it is almost entirely waste, and much of it is overgrown with the wild date, which at present is only used for firewood. The chief cause of the desolation which is here visible is said to be the rapacity of the *Marattahs*. Within the memory of man this country has suffered two inroads, one about thirty years ago by *Trumbaca Mama*, and another by *Purseram-Bow*.

Banawara.

Banawara is one of the best mud forts that I have seen; and, owing to its strength, it escaped from the fangs of the *Marattahs*. It is situated in a fine open country, on the side of a large *Tank* which is at present dry. The people are very subject to fevers, which cannot be attributed to the black clay; for the soil is dry and sandy. It formerly belonged to *Hari Hara Swameswara Raya*, a *Polygar* descended from *Belalla Raya*, and of course of a most ancient family of the *Jain* religion. The ruins of their palace still occupy a considerable space, and are surrounded by a very high wall, which even now is in good repair. The buildings within have been mean, and are almost entirely ruinous. This family was destroyed by *Badu Khan*, a *Mussulman* chief. He was expelled by a *Bayda* named *Timuppa Nayaka*; he again was driven out by the *Sivabhactars* of *Ikeri*; and from them the place was taken by *Chica Deva Raya*, *Wodear* of *Mysore*, the 7th in ascent from the *Curtur* whom *Hyder* confined. On that chief's getting possession of the government, *Banawara* contained about 2000 houses; but most of the inhabitants, with those of five other towns, were removed to occupy a new city, named *Naga-puri*.

Naga-puri.

In order, probably, to secure these people and their effects from the *Marattahs*, *Hyder* built the fort of *Naga-puri* in a small valley, which is about half a coss in extent each way, and is surrounded on all sides by low hills, like those of *Chatrakal*. These hills appear to extend about two cosses from east to west, and three cosses from north to south. *Naga-puri*, which stood three cosses from *Banawara*, was found to be excessively unhealthy; and its situation did not prevent it from being plundered by the *Marattahs*. *Hyder*, therefore, eighteen months after having built it, allowed the people to return to their former abodes.

Banawara.

Tippoo bestowed some attention in encouraging the people of *Banawara*. On the fall of *Seringapatam*, *Hunnama Nayaka*, an uncle of the *Polygar* of *Terri-caray*, seized on the fort, and kept possession for two months and a half. On the approach of a detachment of British troops, his followers dispersed; and the newly appointed *Amildar*, who was in the neighbourhood with 300 *Candashara*, seized him, and hung him up directly. At present, *Banawara* contains 500 houses, many of which are inhabited by *Bráhmans*.

1801. May 10. Lands forced on the cultivators. The cultivators being scarce, the officers of revenue fall on a curious plan of increasing the appearance of cultivation, and of thus getting credit for having their districts in good condition. This is a very common practice, I am told, in every part of the south of India, and is as follows. In place of letting at the full rent, to the few inhabitants that remain, as much land as they can cultivate, the *Amildars* give no man more than what his family originally possessed; but, when he has finished the cultivation of his paternal farm, the tenant is forced to plough and sow as much of the waste fields as he can; and, in order to increase the quantity, no money rent is demanded; but the government is contented with a share of the produce, which is very small, the cultivation having been performed in a very imperfect manner.

Division of crops. Some of the rice-lands here are let for a money rent, and some by a division of crops, which the *Amildars* allege is much the best mode of assessment in a country where the quantity of rain is so uncertain. If the rains do not come, the tenant cannot pay his rent; and if they come in abundance, it is but fair, that the government should reap a part of the benefit. This reasoning is specious; but the division of crops, except under the immediate inspection of a small proprietor, gives such opening to fraud, that it ought to be utterly discarded. For the uncertainty of the seasons an easy remedy occurs. As, before the cultivation commences, it is exactly known, what extent of ground the water in the *Tank* will irrigate, those persons, in case of a scarcity of rain, may be exempted from rent, who cannot cultivate their fields; and there is no occasion for any favour being shown to those who can get a supply of water.

Rice-land. In this district (*Taluc*) good rice-land lets at twenty *Bahadury Pagodas* a *Candaca*, which the cultivators say is equal to the value of one half of the grain produced; for they acknowledge, that this ground produces forty fold, and value each *Candaca* at one *Pagoda*. This, however, is a low valuation; for the *Candaca* here contains 24,480 cubical inches; so that at this rate the bushel of rough rice would cost rather under $8\frac{1}{2}d$. The produce of the soil here, and in the *Budihalu* district, is acknowledged to be nearly the same; while in the intermediate district of *Garuda-giri*, the people acknowledge only half the quantity. The people of *Banawara* say, that their neighbours did not impose upon me; but that their soil is actually inferior. I measured a plot, which was said to require a *Colaga* of seed, and found that it contained 23,255 square feet. At this rate, the acre will require for seed $1\frac{067}{1000}$ bushel nearly, which agrees very well with the measurement at *Belluguru*. The acre here produces $42\frac{67}{100}$ bushels of rough rice, and pays 15*s*. 1*d*. of rent, which is reckoned the value of one half of the grain produced; but this is valued by at least one fourth too little.

Tobacco. In the neighbouring districts of *Garuda-giri*, *Banawara*, *Caduru*, *Harana-hully*, *Honawully*, and *Chin'-raya-pattana*, the cultivation of tobacco is very considerable. It is exported in large quantities to

all the countries toward the north and west. It is sown in the dry field, cultivated for *Ragy* and other similar grains, of which a crop must intervene between every two crops of tobacco. When the season proves very wet, it cannot be cultivated, and it requires a good *Ragy* soil. A few small stones do no harm, but it will not grow on the hard soil called *Darray*; and, in fact, the soil of the first quality is that usually employed, though sometimes the tobacco is planted on the best fields of the second quality. In the three months following the vernal equinox, the field ought, if possible, to be ploughed ten times; but some of these ploughings are often neglected. After the 4th or 5th time, sheep and cattle must for some nights be kept on the field for manure. During the last fifteen days of the second month after midsummer, small holes are made throughout the field. They are formed with the hand, and disposed in rows distant from each other 1½ cubit; and in every hole a young tobacco plant is set. This being the rainy season, the tobacco requires no watering, unless during the first ten days from its having been transplanted there should happen to be two successive fair days. In this case, on the second fair day, water must be given with a pot. On the 15th day a little dung is put into each hole, and the field is hoed with the *Cuntay*. Every fourth or fifth day, until the tobacco is cut, this is repeated, so as to keep the soil open and well pulverized. At the end of a month and a half, the top shoots of the plants are pinched off, and every eight or ten days this is repeated; so that six or seven leaves only are permitted to remain on each stem. In the month preceding the shortest day, it is fit for cutting. The stems are cut about four or five inches from the ground, and are then split lengthwise; so that each portion has three or four leaves. These half stems are strung upon a line, which is passed through their root ends; and then for twenty days they are spread out to the sun and air. Every third day they are turned, and they must be covered with mats should there happen to be rain; but at this season that seldom comes. The tobacco is then taken into the house, put into a heap, and turned four or five times, with an interval of three days between each time. It is then fit for sale, and by the merchants is made up into bundles, which include the stems. It is sold by weight; and on an average the farmer gets one *Sultany Pagoda* for every four *Maunds*, each containing 40 *Seers* of 24 *Rupees* weight. This is at the rate of very nearly a penny a pound, being 9*s*. 3½*d*. a hundred weight. In order to prepare the seedlings, a plot of ground must be dug in the month which precedes the longest day. It must be then cleared from stones, and separated by little banks into squares for watering, in the same manner as in this country is done to kitchen gardens. The tobacco seed is then mixed with dung, and sown in the squares, which are smoothed with the hand, sprinkled with water, and then covered with branches of the wild date. Every third day it must be watered. On the 8th day the plants come up, and then the palm branches must be removed. If the plants be

1801. May 10.

1801. May 10.

wanted soon, they ought to have more dung, and to be kept clear from weeds. With this management, they are fit for transplanting in from a month to six weeks. If they are not wanted for two months, or ten weeks, the second dunging is omitted, and the growth of the plants is checked by giving them no water for eight days after they come up.

Value of land cultivated for tobacco

A *Wocula* of *Ragy* land plants 4000 tobacco stems, and in a good crop produces 16 *Maunds*, worth four *Sultany Pagodas.* This ground would sow one *Colaga* of *Ragy*, and produce two *Candacas*, or forty fold, worth 2 *Pagodas.* The *Colaga* or *Wocula-land*, of the first quality used for tobacco, pays a tax of one *Pagoda*; of the 2d quality it pays ¾ of a *Pagoda*; of the 3d, or worst quality, it pays half a *Pagoda.* I measured a field said to require 1½ *Colaga* of *Ragy* for seed, and found it to contain 15,000 square feet. The *Wocula* land, therefore, should contain 100,000 square feet; but, if a *Wocula* plants 4000 tobacco stems at 1½ cubit distance, which I found to be the actual thickness, more than one fourth of this extent cannot be allowed for it. The number of 4000 plants, that can be put in a *Wocula* of land, was afterwards confirmed to me at *Jamagullu.* I am quite uncertain, however, whether the actual measurement, or a calculation founded on the number of plants, ought to be preferred. By the former the acre of the first quality of land would pay a little more than 3*s.* 6*d.* as land tax, and would produce 169 lb. of dried tobacco, worth 14*s.* 0½*d.*; or it would sow almost two gallons of *Ragy* seed, and produce almost ten bushels, worth 7*s.* 0¼*d.* On the other supposition, the rent, seed, and produce, would be four times as great; but that would render this land almost as valuable as rice ground, which cannot be the case.

May 11. Appearance of the country.

11th *May.*— I went three long cosses to *Jamagullu.* The country is rather more broken than that through which I have come for the last two days, and is equally deserted. The wild date has even overgrown much of the rice-land. *Jamagullu* at present contains about eighty houses, and has a fort. Before the invasion of *Trumbaca Mama*, it was a large place, but has never since recovered.

Temple built by *Sholun Raya.*

Here is a temple dedicated to *Narasingha*, and built entirely of *Balapum*, or potstone. It is highly ornamented after the *Hindu* fashion, and on the outside every part of its walls is covered with small images in full *relievo.* Both the general structure of the fabric, and the execution of the component figures, are utterly destitute of either grandeur or elegance; indeed, I have not yet had the good fortune to meet with a *Hindu* image that was tolerable. This temple is said to have been built by *Sholun Raya*, and the architect that he employed was named *Jacanachery.* This prince lived about a thousand years ago; and having killed a *Bráhman*, in order to wash away his sin, he employed twenty years in travelling between *Kasi* and *Rameswara*, and in rebuilding temples. The one here entirely resembles in its style the others that I have seen which are attributed to the repentance of this personage. It has an inscrip-

tion on stone, but that has been defaced. The annual revenues formerly belonging to the temple amounted to 250 *Ikeri Pagodas* (100*l.* 6*s.* 4½*d.*) These were entirely removed by the *Sultan*. *Purnea* allows it 50 *Canter' Raya Pagodas* a year in money, or 15*l.* 12*s.* 0½*d.*

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Strata of potstone.

Many of the *strata* around this are of potstone. They are quite vertical, and run north and south in the usual direction of the other *strata* of the country. In general, the potstone breaks into small fragments, and it is full of fissures; but in the neighbouring country there are many quarries, where masses of great size may be procured. It forms an excellent material for building, being very easily cut, and at the same time being excessively tough. The good kinds resemble entirely the stone at *Maru-Hully*, described in the eighth chapter of my Journal, Vol. I. p. 393; and, in fact, are somewhat between a hornblende and a potstone.

Climate and soil.

For the two last nights there has been much thunder, but no rain. To-night there was both thunder and very heavy rain. The soil here is very fertile; for the farmers acknowledge 50 fold to be the usual crop of both *Ragy* and rice, that have been sown on good ground properly cultivated. From what I have stated at *Banawara*, the produce by the acre, at this rate, may be easily estimated.

Bull Rajas.

The fort of *Jamagullu* was built by a *Baydaru Polygar*, named *Eijuru Vencatuppa Nayaka*. His family were related to the *Polygars* of *Raga-durga*, and south and west from hence possessed very considerable territories. *Jamagullu* was taken from them by the *Mysore* family, who annexed it to *Banawara*, under which it has ever since continued. In the reign of the *Sultan*, the descendants of *Eijuru Vencatuppa* had no lands, but still retained the title of *Bull Rajas*, and had an annual pension of 5000 *Pagodas* (1560*l.* 3*s.* 9½*d.*) On the fall of *Seringapatam*, *Kristuppa Nayaka*, the heir of the family, seized on *Manzur-abad*, *Bailuru*, and other parts of his ancestors' dominions, and has made an obstinate struggle to retain them. In this he has had little success, and he has lately been forced to retire to the almost inaccessible forests near the *Ghats*.

May 12. Weather.

12th *May*.—I went to *Hullybedu*, a stage of about 10 miles, but it is called only two cosses. By the last night's rain the rivulets were swollen, and the natives consider the rainy season as commenced; but for the first two months, showers once only in four or five days are expected. On this day's route much of the soil is good, but the country is quite deserted. By the way I observed some small hills, consisting entirely of calcareous tufa, mixed with a little earth. *Hullybedu*, at present, is a small mud fort, with a suburb (*Petta*) containing about eighty houses, and abounding with beggars. It stands on the side of a large *Tank*, that waters a great deal of fine rice-ground, much of which is planted with sugar-cane, and some with palm gardens. This *Tank* was formerly in the centre of a great city, which was named *Dorasamudra*, and was the residence of several of the *Belalla Rayas*, who once reigned over a great part of the

1801. May 12

peninsula of India. According to the natives, the walls of this city may be traced, extending three cosses in circumference; and the site of the place is shown, and is readily distinguishable by having been placed in an inner fort, or citadel.

Jain.

The *Belallu* family having been originally *Jain,* some traces of that religion still remain. There are here several people of that persuasion; and within a common inclosure there are three of the temples called *Busties.* Here are three inscriptions; one defaced, and two legible. I had the latter copied, and left the copies that they might be written in a fair hand; but they were not forwarded, according to promise.

Fine temple of *Siva.*

The most remarkable building at *Hullybedu* is a temple of *Siva* erected by *Vishnu Verdana Raya.* From an inscription on the wall, this must have been before the year of *Sal.* 1203, or A.D. 128$\frac{0}{1}$. A copy of this inscription has been delivered to the Bengal government. This temple is built of similar materials, and in a similar style of architecture, with that at *Jamagullu*; but is larger, and more crowded with ornaments. Its walls contain a very ample delineation of *Hindu* mythology; which, in the representation of human or animal forms, is as destitute of elegance as usual; but some of the foliages possess great neatness, as may be seen by a drawing made of part of one, and given in Plate XXVII. figure 83. The temple has long been without a *Pujari,* or public worship, and has gone so far to decay, that it would be repaired with great difficulty. This is a pity, as it much exceeds any *Hindu* building that I have elsewhere seen.

Fine stone.

Before the temple are placed two images of the *Baswa,* or bull of *Siva.* The one is of *Balapum,* or the potstone impregnated with hornblende, of which the temple is built, and which does not admit of a marble polish. This stone, which as usual represents the bull in a lying posture, is sixteen feet long, ten feet high, and seven feet broad. The other image is not quite so large; but its materials are finer, and admit of a marble polish. It seems also to be a potstone, or perhaps a talc impregnated with hornblende, and contains small irregular veins of a green shining matter. Its general colour is black, with a tinge of green. Some of the pillars in the inner part of the temple are of the same fine black hornblende that is used in *Hyder's* monument, and are highly polished. Some of them reflect objects double, which by the natives is looked upon as miraculous. These temples having been built when this was the seat of empire, and the inhabitants for many centuries having had no occasion for such costly materials in their buildings, the knowledge of the quarries from which they were supplied has been lost; and the natives believe that the stones were brought from *Kási,* on the banks of the *Ganges.*

Rock called *Cariculla.*

A very common rock here is called by the natives the blackstone (*Cariculla*). It seems to be a hornblende porphyry; but the basis, having a slight degree of transparency, probably consists of an intimate union of hornstone, or quartz, with hornblende. It is

black, with a greenish tinge, and greasy appearance, and contains white felspar in pieces of various sizes. It sometimes also contains veins of quartz, and on that account might perhaps be called a *Sienite*. It does not cut well for fine buildings; but breaks into quadrangular masses, which, from their being excessively tough and durable, make excellent rough work. For the same reason it is frequently hollowed out into the mortars of oil mills. 1801. May 12.

13th *May*.—I went three cosses to *Bailuru*. The country is very bare; some of it is hilly, and full of stones; much of it is a good *Ragy* soil; but very little is cultivated. I crossed a small river called the *Bhadri*, which comes from *Baba Bodeen's* hills, and runs into the *Cavery*. It never dries entirely, and receives the water from all the country south from *Banawara*. To the west of the *Bhadri* river the country is called *Malayar*, or the hills; while that on the eastern side is called *Meidan*, or the open country. I remained at *Bailuru*, taking an account of the cultivation there, as an example of that which prevails in the hilly region whence the *Cavery* has its sources. May 13. Appearance of the country.

The nature of the *Malayar* country resembles that of the sea coast below the western *Ghats*, in so far as rice is the principal object of cultivation, and as little attention is paid to the rearing of dry grains upon which the people to the north and west of the *Bhadri* chiefly subsist. In the *Malayar* country, however, there are no pepper gardens, nor plantations of *betel-nut* palms, for which it seems as well fitted as the *Nagara* principality. It is said entirely to resemble the *Codagu Rayada*, or *Coorg* country. At *Bailuru* there is no brickstone, and the country abounds with calcareous *tufa*. The hills are overgrown with wood, and are considered as quite useless. The vallies only are cultivated. Country called *Malayar*.

On the *Bhadri* there was formerly a dam, the water from which irrigated forty *Candacas* of rice-land; but this has gone to decay, and to repair it would require two or three thousand *Pagodas*, or about ten years rent. The rains in all the *Malayar* country are very heavy, and in general bring one crop of rice to maturity; but unless there be small *Tanks* to give a supply for any intervals of fair weather that may occasionally happen, the crops are rather uncertain. This circumstance occasions the rice-lands to be divided into two kinds; the one, called *Niravery*, is supplied from *Tanks*, and the other, called *Mackey*, depends entirely on the rains. Rice ground.

Each kind of rice-ground, according to its soil, is divided into three qualities. The extent is estimated by what are called *Candacas*; but these vary much in size, and in general require much more seed than one *Candaca*. A *Candaca* of *Mackey* is always larger than one of *Niravery*; and the rent not only depends on the nature of the soil, but on the extent of the *Candaca*. The *Candaca* of grain, it must be observed, contains 4095 cubical inches, and consists of twenty *Colagas*, each divided into nine *Cucha Seers*. I measured a field of rich *Mackey* land, which was called a *Candaca*, and required Rent and quantity of seed.

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thirty *Colagas* of rice-seed. It not only produced annually a crop of rice, but one also of *Callay* (*Cicer arietinum*); on which account it paid a rent of three *Ikeri Pagodas* a year, which is the highest rate in this district (*Taluc*). I found that it measured 64932 square feet. At this rate, an acre would sow $1\frac{9155}{10000}$ bushel, and pay 16*s.* $2\frac{1}{2}$*d.* as rent. I then measured a field of *Niravery*, of a very poor soil, but well supplied with water. It is said to require thirty-three *Colagas* of seed, and its rent is also three *Pagodas*. In order to make up for the poverty of soil, a quantity of dry-field is thrown into the field, and pays no additional rent. This dry-field sows four *Seers* of *Ragy* (*Cynosurus corocanus*), and two of *Huts' Ellu* (*Verbesina sativa*, Roxb. MSS.) I found, that the *Niravery* contained 28566 square feet, and the *Ragy* ground 7100 square feet. The rent upon the acre, including both kinds of ground, is therefore 1*l.* 9*s.* $6\frac{1}{4}$*d.* The seed of rice is at the rate of $\frac{792}{1000}$ bushel an acre; that of *Ragy* at the rate of rather more than one peck $1\frac{17}{100}$; and that of *Huts' Ellu* at the rate of about half a peck an acre. In the following table will be seen the kinds of rice cultivated here.

Kind.	Land.	Cultivation.	Quality.	Months required to ripen.
Hassoday	*Niravery*	Dry-seed	Large	8
Chipiga	do.	do	do.	7
Kiaseri	do.	do	do.	7
Cumbara Kisaeri	Both	do	do.	7
Balla Muligay	*Niravery*	do	Middle sized	8
Sana Butta Bily	do.	do	Small	8
Do. Kempu	do.	do	do.	7
Modara	Both	All 3 methods	Coarse	7
Kiriwunna	*Niravery*	Dry-seed transplanted	do.	8
Putta Butta	do.	Dry and sprouted-seed.	Small	8

Niravery land.

On *Niravery* land, or that which has a supply of water from *Tanks*, the rices most commonly cultivated are *Kiriwunna* and *Hassoday*. All the three kinds of cultivation are in use; but in ordinary seasons the dry-seed is by far the most prevalent. In extraordinary wet seasons a good deal is transplanted, and some is sown sprouted.

Dry-seed.

The cultivation of the dry-seed is conducted as follows. In the month following the winter solstice, the ploughing commences, and in the course of two months the operation is eight times repeated. The little banks, inclosing the plots for confining the water, are then repaired, and the field is manured. In the month preceding the vernal equinox, after a shower of rain, the clods are smoothed with the *Ada*, or *Gydday Maram*, which is the same implement with

that which at *Nagara* is called *Noli*, Plate XXIX. Figure 79. Eight days afterwards the field is again ploughed, and again smoothed with the *Ada*. The seed is sown by the drill, according as the rainy season commences, during the two months and a half which follow the vernal equinox. It is then covered by the *Ada*. On the 23d day after having been sown, the field is hoed with the *Edday Cuntay*, Plate XXVIII. Figure 76, and this is repeated twice, with an interval of four days between each time. The field is then inundated by confining the water, and the *Cuntay* is drawn a fourth time in the mud. On the day following, the soil is smoothed with the *Ada*. Eight days afterwards, the field is drained until the weeds can be removed by the hand. After a month or six weeks, this must be repeated. The rice is cut with the straw, and trodden out by oxen. It is sometimes sold by the cultivators in the husk, and sometimes after having been cleaned, eight parts of which are equal in value to twenty parts in the husk. The farmers estimate their rough rice at six *Canadcas* for a *Bahadury Pagoda*, or their rice at 30 *Seers* for the *Rupee*; but in the market (*Bazar*) none is sold lower than 23 *Seers* for a *Rupee*. The wholesale price for rough-rice therefore, is a small fraction less than 8½*d*., and for rice a small fraction more than 1*s*. 9*d*. a bushel. This, however, is only the price for which necessitous persons sell it at harvest time; the average value is probably a fifth part more. The farmers say, that on a good soil the crop is about 25 *Candacas* on a *Candaca* land, which, according to my measurement, is about 72½ bushels an acre, worth 2*l*. 11*s*. 2½*d*.; deduct for seed 3*s*. 4½*d*., and for rent 1*l*. 9*s*. 6*d*., and there remain to the tenants, for stock and labour, 18*s*. 2½*d*.

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Advantage of sowing thick.

Nothing can better show the great error into which the *Hindu* farmers fall, in sowing too little seed; a practice which seems to have arisen from their usual poverty, and from the constant cropping of their land, which, without plentiful irrigation, or rich manuring, is thereby too much exhausted to produce a full crop. The farmers here, probably, under-rate their produce as much as their neighbours; but as they sow their seed almost four times as thick, they have from the same extent of land at least three times as much produce. It is true, that here they speak of a small increase of seventeen or eighteen fold, while in other places they talk largely of an increase of forty, and even sixty seeds; but here an acre produces for the support of man from sixty-five to seventy bushels of rough rice; while in the others from twenty to twenty-four may be considered as a usual crop.

Transplanted crop.

When the rains are heavy, a good deal of rice is raised by transplantation. For every *Candaca* land, two *Candacas* of seed must be sown; and the produce of this, on the best land, is only twenty-one or twenty-two *Candacas*.

Sprouted seed.

Very little sprouted-seed is sown; but it seems to be the cultivation that would answer best. For a *Candaca* land fifteen *Colagas* of seed are sufficient, and the produce is little less than in the dry-

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seed. The reason that the natives assign for neglecting the sprouted-seed cultivation is, that it requires the ploughing to be performed while the field has by irrigation been reduced to mud, and that their cattle are not adequate to this labour. The cattle, however, are not worse than those of the sea-coast, where the dry seed is seldom sown.

Mackey land.

On the *Mackey* land or that which depends entirely on rain for a supply of water, the seed is always sown without preparation, and managed exactly in the same manner as on the *Niravery*. The produce, on the best land, is 22 *Candacas* from thirty *Colagas* sown on a *Candaca* field. According to my measurement, this makes the produce of the acre rather more than 28 bushels, worth 19*s.* 10*d.*; deduct 1*s.* $4\frac{1}{2}$*d.* for seed, and 6*s.* $2\frac{1}{2}$*d.* for rent, and there would only remain 2*s.* 3*d.* for stock and labour; but it must be observed, that my estimate of the rent is formed from a very rich field, that produces a second crop of *Callay*, and that the rent of fields giving only a crop of rice is not more than half as much as what I have here stated.

The *Callay*, or *Cicer arietinum*, is sold as it ripens; so that the farmers cannot, or at least will not, say what the produce is.

Dry-field.

The only dry crop cultivated here is *Ragy* mixed with *Huts' Ellu*. When the rains are scanty, these thrive very well; but the seasons are often so wet, as to destroy them all together. The whole quantity sown is very small. The ground is ploughed four times and then manured during the month following the vernal equinox, or in the beginning of the next month. The field is then ploughed twice more. The *Ragy* seed is sown with the *Curigy*, or drill; while the *Huts' Ellu* is disposed in rows, by means of the *Sudiky*, or sharp pointed *Bamboo* tied to the drill. After this, the field is smoothed with a plank, and harrowed with a bunch of thorns. On the 12th day it is hoed with the *Cuntay*, and this is repeated four times, with intervals between every two, of from five to eight days. The produce in a good crop is said to be forty seeds of *Ragy*, and nine of *Huts' Ellu*. According to my measurement, this will make the produce of an acre $16\frac{7}{10}$ bushels of *Ragy*, and $1\frac{1}{8}$ bushel of *Huts' Ellu*.

Tenures.

The lands here, both dry and watered, are let by a fixed rent in money, according to an old valuation. They are seldom kept separate; but a little of the dry field is thrown into the contiguous plots of rice land. In this district, the *Bráhmans* have lands in free gift (*Enam*) to the annual value of 500 *Pagodas*; and a *Mussulman* has an estate of the same nature worth 24 *Pagodas*. These lands may be transferred by sale. All the remainder is the property of the Government; but, if a farmer pay the full valuation, he cannot legally be turned out of his possession. Many of them, however, will not consent to give the full rent, and these may be dispossessed whenever a better tenant offers. The *Niravery* is valued at from two to three *Bahadury Pagodas* a *Candaca*. The *Mackey*, except where it is extraordinarily rich, is only valued at from 1 to $1\frac{1}{2}$ *Pagoda*.

In the *Malayar* there are no slaves. Most of the labour is carried on by the farmers, and their own families. Servants are hired by the year, month, or day. A man's wages when hired by the year are annually three *Pagodas*, a pair of sandals, a blanket, and daily a meal of ready-dressed rice; worth all together about five *Pagodas*, or about 2*l*. He eats another time daily, but this is at his own expense. A servant hired by the month gets half a *Pagoda*, or about four shillings, without any addition. The daily hire is ⅓ of a *Canter'-raya Fanam*, or 2½*d*. Hired servants work from eight in the morning until six in the afternoon; but half an hour's intermission is granted, to give them time to eat some ready-prepared victuals. 1801. May 13. Price of labour.

Each plough requires two oxen, and one man, and can cultivate two *Candacas* of land. Suppose these to be of the best quality, then the rent will be six *Pagodas*, the man's hire five *Pagodas*, extra labour at seed-time and harvest three *Pagodas*, seed half a *Pagoda*; total expense, besides interest for the stock, fourteen *Pagodas* and a half. The produce, according to the farmers, is fifty *Candacas*, worth 8⅓ *Pagodas*. From this it is evident, either that the farmers greatly over-rate their expenses, or under-rate the produce and extent of the land cultivated by one plough; and probably they do both; but what the real state is, I could not ascertain. Stock.

The only manure used here is from the dunghill, in which, with all the cow-dung, the ashes and sweepings of the house are collected. The cattle sleep the whole year in the house, but are never littered, which is a very great defect in the agriculture of a country. On the *Malayar* side of the *Bhadri* rivulet, the size of the cattle diminishes, and sheep will not thrive; and in that country neither asses nor swine are bred. Cattle and manure.

A considerable trade is carried on between *Bailuru* and *Jamalabad*. The goods imported from the country below the *Ghats* are *betel-nut*, ginger, pepper, *Cássia (Laurus)*, *Cachora (Acorus)*, *Casturi* (a kind of turmeric), turmeric, and salt. The goods sent from *Bailuru* are tobacco, *Jagory*, capsicum, cummin-seed, *Danya*, (a seed like anise), tamarinds, iron, grain, buffaloes, onions, mustard, cotton cloth and thread, and blankets (*Cumlies*). Commerce.

I found here two men whom an officer now stationed at *Arcot* employed in rearing cochineal. They have been in this country one year, have sent to their employer fifteen *Maunds*, have fifteen *Maunds* ready for sale, and, before the insects have consumed all the *Nopals (Cactus)* that are near the town, they expect to have ten *Maunds* more. When this happens, they will carry two men's load of branches filled with the insect, and apply these to the *Nopals* of some other place; where they will remain until the insects breed, and consume all the plants. The *Nopals* have been raised by the farmers as fences round their gardens, but were sold by the officers of revenue for four *Bahadury Pagodas*, or about a guinea and a half. So soon as all the plants have been consumed, such of the insects as have not been collected will perish; and the *Amildar* says, that he Cochineal.

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will then compel the farmers to plant new hedges of the *Nopal*; but I suspect that few plants will be reared, unless the farmers get a large share of the profits, as indeed they ought in reason to do. The hedges will grow up in three years, when it is expected that some other person rearing the insect will come and buy the plants.

This seems to me to be the most rational plan of any that has been hitherto proposed for rearing the cochineal in India; and to be deserving of the attention and encouragement of government. The men employed here say, that the young insects ought to be put upon the new hedges immediately after the rainy season is past. In six months they will have increased so, that they may begin to be collected; and a year more will elapse before the whole plants are consumed. During the course of this year, whenever a leaf is fully loaded, it ought to be cut, and the insects scraped from it with a small stick, and collected in a basket. When they are in this, a little boiling water is poured on them, by which they are killed. They are then well agitated in the basket, to remove the hair with which they are covered, and dried for two days in the sun, when they are fit for sale. These men say, that, all expenses included, the cochineal, thus prepared, will cost here three *Madras Pagodas* a *Maund* of forty *Seers*, each weighing twenty-four *Rupees*; which is rather less than 11*d*. a pound. The cochineal is of the bad kind that has lately been introduced into India, and the plant is the *Cactus* that is the aboriginal of the country.

History of *Bailuru*.

Bailuru, or *Bailapuri*, as it is called in the *Sanskrit*, is situated at a little distance from the *Bhadri* river, and has a good fort built of stone, and a suburb (*Petta*) which contains about six hundred houses.

In order to get some historical information, I assembled the *Bráhmans* who are proprietors of free estates (*Enáms*); but I found them, as usual, grossly ignorant. They either could not or would not read any of the inscriptions that are at their temple; and I was obliged to employ my interpreter to get one of them copied. It contains a grant of lands from *Narasingha Raya*, son of *Vishnu Verdana*, to *Narasingha Swami*, (one of the incarnations of *Vishnu*), and is dated in the year of *Sal.* 1095. A copy has been given to the Bengal government. I found among the *Bráhmans* a poor man who had no *Enam*, and whose poverty had sharpened his understanding; he read the inscriptions with the utmost facility, and I set him to work at them on the second morning of my stay; but I found his industry not equal to his intelligence; and in the evening, when I went to see what progress he had made, I found that he had scarcely commenced; and all the idle *Bráhmans* of the place having assembled on the occasion, the day had been passed in conversation. I found, however, that he possessed a manuscript that had been written by his ancestors, and which, he says, contains an account, collected from the inscriptions here, of the repairing the temple of *Cayshava Permal* by *Vishnu Verdana Raya* in the year of *Salivahanam* 1039;

and of all the gifts made to that celebrated place of worship by the three sons of this prince. This manuscript was in a very old character; but the *Bráhman's* necessities induced him to follow me to the next stage, and to give me a copy, which has been presented to the government of Bengal. 1801. May 14.

The temple in its present form was built by *Vishnu Verdana*; after his conversion by *Rama Anuja Acharya*, of which I have given an account in the seventh chapter of this Journal, Vol. I., p. 345. It is in good repair, and is a large building, which, although inferior to those of *Hully-bedu* and *Jamagullu*, is much ornamented after the *Hindu* fashion.

The *Bráhmans* whom I had assembled say from tradition, that this country, meaning *Karnata*, was divided among nine brothers of the *Belalla* family, who were all destroyed by the *Turcs*, except one young man. The *Mussulmans* found it afterwards necessary to restore this prince to the dominions of his ancestors; and on his first accession he was called *Bitu Deva Raya*; but afterwards, having rebuilt the temple here, and that of *Siva Hully-bedu*, he took the name of *Vishnu Verdana*. He sometimes resided at the one place, and sometimes at the other; but *Hully-bedu* seems to have been by far the largest town. He had great success against the Mussulmans, and expelled them entirely from all the country south from the *Krishna*. His son *Narasingha* governed quietly, and was succeeded by his son *Vira Belalla*, who was destroyed by a *Mussulman* prince that *Baba Bodeen* invited. His residence had been chiefly at *Bellagami*. The *Mussulman* prince is by the *Bráhmans* called *Hussein Khan*. He took up his abode in the great temple here, and was succeeded by his son *Runnadulla Khan*. This *Mussulman* was expelled by two of his *Hindu* officers, named *Rama Raya* and *Achuta Raya*, who established themselves at *Anagundi*. They were succeeded by their two brothers *Krishna* and *Narasingha Rayaru*. Here these *Bráhmans* are jumbling together all the traditions of the country. What follows has more resemblance to probability.

The *Rayaru* distributed all their dominions among their servants. The ancestor of the *Mysore Rájás*, for instance, was the person who made the king's bed. The person who carried the *Betel*-box was *Vencatadri Nayaka*, ancestor of *Krishtuppa*, the present *Bull Raja*. The chiefs descended from *Vecatadri* were originally of considerable note in the country, and had three places of residence, *Bailuru*, *Sakrapattana*, and *Narasingha-pura*. When driven from these by the *Mysore* family, they retired to the hills of *Manzur-abad*, around which they possessed a territory worth annually 18,000 *Pagodas*, or 5516*l*. 13*s*. 4*d*. *Hyder* rendered them tributary, and the present heir was driven by *Tippoo* into the *Marattah* dominions. Five years afterwards he solicited a pardon, which was granted, and he was taken into the service on an allowance of 2000 *Pagodas* a year.

1801. May 14. This was afterwards increased to 5000. On the fall of *Seringapatam*, he demanded the restoration of his ancient family domains; which was refused, and he was offered the same allowance that he received from the *Sultan*. The people here think that he would be satisfied with being put on the same footing that he was in the reign of *Hyder*; but, as a war has commenced, he is not likely to get any thing. At first he had some success, and seized on *Bailuru*, but he is now cooped up in the woods of the western *Ghats*.

May 15. Appearance of the country. 15th *May*.—I went three cosses to *Haltoray*. I first recrossed the *Bhadri*, and then proceeded through a country fine by nature, but very bare. It does not seem so destitute of cultivators as most parts through which I have lately come; but at least one half of the arable lands are waste. There is much rice-land. Some of the *Tanks* are large; and the crop which they irrigate is raised chiefly in the dry season, after the quantity of water which they are to collect for the season has been ascertained. A great part of the rice-land is *Mackey*, which is cultivated in the rainy season, without a supply from *Tanks*. The farmers here acknowledge forty seeds as the usual produce of good rice-lands. The dry ground is very fit for *Ragy*; and on the east of the *Bhadri* much of that grain is raised.

Sankety Brahmans. Near *Haltoray* are some fine *Betel-nut* gardens, the property of a kind of *Sri Vaishnavam Bráhmans*, called *Sankety*. They are all *Vaidika*; but are not on that account exempted from gross ignorance, and they never read any thing, except accompts, or letters on business. They are originally from *Dravada* proper, and now speak a strange mixture of the *Tamul* and *Karnata* languages.

Having assembled these *Bráhmans*, they gave me the following account of their gardens.

Plantations. *Betel-nut* plantations are found no farther west than *Haltoray*, and from thence they extend all the way to *Sira*. As soon as the garden begins to produce, the proprietors pay one half of the nut as rent to government, and are at the whole expense, not only of rearing the plantations, but of forming the wells and *Tanks* by which these are watered. The government gets no share of any other part of the produce, which consists of plantains and *Betel leaf*. A man may sell his garden; but if he allows it to become waste, the soil is public property. The plantation is not allowed to die out; but, when one tree decays, a new one is planted in its stead. After the trees have grown up, they are allowed neither dung nor water; but the garden is hoed three times in the year; and once in five years the channels for carrying off superfluous water are cleared, and some fresh earth is put on the beds. When *Betel leaf* is reared upon the palms, the garden must be regularly watered and manured, and on that account becomes more productive. Pepper vines, it is said, have been tried here, but without success. The *Bráhmans* say, that in the *Malayar* district they have in vain tried to rear the *Betel-nut* palm. How this should have happened I cannot understand, as the

climate there very exactly resembles that of *Nagara*. Perhaps the *Bráhmans* have neglected to shelter the young plantations from the setting sun, which in the open country, owing to its greater coolness, is not requisite. A garden of 300 bearing *Arecas* produces ten *Maunds* of boiled *Betel-nut*, worth one *Bahadury Pagoda* a *Maund*, or 1*l.* 17*s.* 2½*d.* a cwt. To give one *Maund* of prepared *Betel* requires 4000 nuts; so that the average produce, acknowledged by the proprietors, for each tree of a bearing age, is 133⅓ nuts, that are worth, when boiled, 3¼ pence, of which one half is paid for rent. That this may be the amount received by government is very probable; but few will be inclined to credit that it really exacts the fair half of the produce. 1801. May 15.

Sandal. Sandal-wood trees are planted in the hedges that surround these gardens. The government has the sole right of cutting and disposing of this article of commerce; but the proprietor of the garden expects for his trouble in rearing it, and with justice receives, a gratuity. The planted *Sandal* is here reckoned of as good a quality as that which has grown spontaneously.

Haltoray. *Haltoray* is a ruinous mud fort, but it contains some good houses, which belong to the *Sankety Bráhmans*. Most of the other houses are in ruins, and were reduced to that state by the troops of the *Sultan*; who, in their marches to and from *Mangalore* and *Nagara*, frequently passed this way. The discipline of this prince did not extend to prevent his troops from being rapacious, even in his own territory. In *Hyder's* government the people had no reason to complain of the army. *Haltoray* was never a large place. Its name is thus explained: *Hal* signifies milk, and *Toray* a stair leading down to a *Tank* or river. It formerly belonged to the *Hasina* district; but when the conquests of the *Mysore* family extended that length, it was annexed to *Bailuru*. Before this family rose to power, *Hasina, Grama, Chin'-raya-pattana*, and *Narasingha-pura*, belonged to the ancestors of *Krishtuppa Nayaka*, the *Bull Raja*. At *Haltoray* are the ruins of a temple dedicated to *Bira Linga*, a deity of the *Curubaru*. There are at it two inscriptions on stone. One of them is partly legible; and of all that could be made out in a connected form I procured a copy, which has been delivered to the government of Bengal. It is dated in the year of *Sal*. 1116, and in the reign of *Boca Raja*, of whom I have no where else heard.

Aray, or Marattah robbers. In this vicinity robbers have for many years been very numerous. They are the farmers in the *Malayar*, or hilly country to the westward, and are all of *Marattah* extraction, on which account they are by the *Bráhmans* called *Aray*; for, in the *Arabi* or *Tamul* language, that is the name of a *Marattah*. These ruffians come in bands of from twelve to twenty men, and steal, or rob, whatever comes in their way. Murder and torture are frequently added to their other outrages. At present, this class of men have entirely given up agriculture, and have entered into the service of *Krishtuppa*,

1801. May 15.

the *Bull Raja*; nor are the troops of the *Mysore Raja* able to prevent small parties of them from issuing out of the woods, and committing occasional depredations.

May 16. Appearance of the country.

16th *May*.—I went three *Sultany* cosses to *Hasina*, which derives its name from one of the *Saktis* that is the village deity (*Grama Devata*). The country through which I passed is fine *Ragy* land, but very little of it is cultivated.

In good rice-land at *Hasina*, twenty seeds are reckoned the usual produce. In this district, since the *Marattah* invasion, not above a fourth part of the former cultivators remain.

Change of climate.

The natives says, that formerly the rains were so copious, that by means of small *Tanks* a great part of the country could be cultivated for rice. These *Tanks* were only sufficient to contain eight or ten days water, and to supply the fields when such short intervals of fair weather occurred. For forty years past, however, a change having taken place in the climate, no rice has been cultivated, except by means of large reservoirs. The truth of this allegation is confirmed by the number of small *Tanks*, the ruins of which are now visible; and by the plots of ground levelled for rice that are near these *Tanks*, and which are now quite waste.

Hasina.

Hasina formerly stood at some distance from its present situation, toward the south; but one of the *Anagundi Rayarus*, being here on a hunting party, discovered, by the usual means of the hare turning on his dogs, that the place where it now stands was *male ground*. He therefore built a fort on the auspicious ground; and, while he was thus employed, an image of *Siva* rose out of the ground, and was called *Virupacshesawara*, after the celebrated idol at *Anagundi*. A temple was of course built over the image, and it is called *Siddhesawara*. At this temple two inscriptions on stone remain. The one, in the reign of *Achuta* and *Krishna Rayaru*, is dated in the year of *Sal*. 1454. The other is in the reign of *Sedasiva Raya*, son of *Achută Raya*, and is dated in the year of *Sal*. 1412, but that is evidently a mistake of the copyist for 1512, the *Karnata* cyphers for four and five having a strong resemblance. Copies of these inscriptions also have been delivered to the government of Bengal. The place was originally in the *Polyum*, or feudatory estate of the ancestors of the *Bull Raja*. It was taken from them by *Renadulla Khan*, a *Pattan*, whose family held it sixty years. This family of Mussulmans seems to be the same with that which the *Bráhmans* of *Baihuru* confounded with the prince who destroyed *Vira Belalla Raya*. The Mussulmans were expelled by the *Sivabhactars* of *Ikeri*, who held *Hasina* a hundred years. The *Mysore* family then kept it ten years; but were obliged to restore it again to the descendants of *Sedasiva*, the chief of *Ikeri*. Thirty years afterwards, however, they finally annexed it to their territories, and this happened 180 years ago. The whole of the periods in this tradition seem to be lengthened out greatly beyond the truth.

The fort at *Hasina* is by far the best that I have ever seen constructed of mud and rough stones, and is in excellent repair. *Hyder* made the covered way, and a central battery, or cavalier, which serves as a citadel. In his reign the fort contained about fifteen hundred houses, and in the suburbs (*Petta*) there were five hundred. At present, in both places there are only five hundred houses, of which one hundred are occupied by *Bráhmans*, and twenty by *Jain*. These have a temple of the kind called *Busty*, which is by far the neatest place of worship in the town. At *Hasina* there are scarcely either trade or manufactures. **1801.** May 16.

17th *May*.—I went two *Sultany* cosses to *Grama*, which signifies merely a village. It is, however, the Kasba, or capital of a *Taluc* (district), and is a considerable mud fort, containing about two hundred houses. It would not appear to have ever been more populous. It was not taken by *Purseram Bhow*, but suffered exceedingly in *Triumbaca Mama's* invasion. The officers of revenue say, that only one fourth part of the arable lands are waste. The rains never were so copious here as to admit of the cultivation of rice without large reservoirs; but the soil is abundantly good, and, according to its quality, produces from 15 to 40 seeds, both of rice and *Ragy*. The best *Ragy* land lets for eight *Sultany Fanams* a *Colaga*; which of course, at forty seeds, produces two *Candacas*. May 17. *Grama.*

18th *May*.—I went, what appeared a long stage, to *Chin'-raya-pattana*. It was called four *Sultany* cosses. The country is naturally pretty; but, like all that between *Bailuru* and *Seringapatam*, it is exceedingly bare, and has hardly either trees or fences. Some of it is hilly, and much of it poor land; but, to me, by far the greater part of it appears to be arable. Not above one fourth part is now cultivated. On the way, there is one considerable village. Near the road are several fine *Tanks*; and the quantity of rice which this district produces almost equals that of *Ragy*. These *Tanks* also supply water to several palm gardens; and a considerable quantity of sugar-cane is raised on the land that they water. May 18. Appearance of the country.

Chin'-raya-pattana signifies the city of the *little* prince, one of the names of *Vishnu*, who has a temple there. At this in an inscription on stone, of which a copy has been given to the Bengal government. It is dated in the year of *Sal.* 1400, in the reign of *Virapacsha Maha Rayaru*. *Chin'-raya-pattana.*

The fort is well built of stone and lime, and was made by a man named *Baswa-rajya*, in the service of *Canterua Nursa Raja Wodear*. This was the first prince of the *Mysore* family who acquired great power. From the inscription, of which a copy has been given to the Bengal government, and which is engraved on a stone at *Chin'-raya-pattana*, it would appear, that this *Raja* had acquired this town on or before the year of *Sal.* 1561, or of Christ $163\frac{8}{9}$, and that then he acknowledged no superior. Here is also another inscription by the *Mysore* family, a copy of which has been *Mysore* family.

1801. May 18.

delivered with the former. It is dated in the year of *Sal.* 1585, and in the reign of *Deva-Raja Wodear*, who, I believe, was the prince that extended the conquests of this family to *Banawara*, *Garuda-giri*, *Budihalu*, and other districts toward the north-west. Previous to the conquest by the *Mysore* family, *Chin'-raya-pattana* was a *Gramam* belonging to the *Bráhmans* of *Vishnu's* temple; and it was subject to a *Polygar*, whose name the present inhabitants do not remember, but who must have been the ancestor of the *Bull Raja*. *Purseram Bhow* did not attempt to take it, although the garrison consisted only of 500 *Candashara*; but the taking of towns was not his object. With a small suburb (*Petta*) it contains between eight and nine hundred houses, of which sixty are inhabited by *Bráhmans*, and 200 by the *Candashara* that form the garrison. It has a weekly fair, but no considerable trade.

Cycle of sixty years.

I procured from the *Bráhmans* here a table of the years that compose their cycle, to which I have often referred. I annex the years of *Salivahanam*, and of the Christian era, in which, according to the *Bráhmans* of this town, each year of the present cycle commences. It must, however, be observed, that very great variations take place concerning this in different parts, and also apparently in the same part at different times; which renders this chronology of cycles of very little use to the historical antiquary.

1801. May 18.

Year of Christ.	YEAR OF CYCLE.	Year of Salivahanam.	Year of Christ.	YEAR OF CYCLE.	Year of Salivahanam.
1747	Prabava	1669	1777	Hevalumbi	1699
1748	Vibava	1670	1778	Velumbi	1700
1749	Sucla	1671	1779	Vicari	1701
1750	Promoduta	1672	1780	Shervari	1702
1751	Prejotapati	1673	1781	Pluvva	1703
1752	Anghirsa	1674	1782	Chubucrutu	1704
1753	Srimoca	1675	1783	Shobacrutu	1705
1754	Bava	1676	1784	Crodi...	1706
1755	Iva	1677	1785	Visuavasu	1707
1756	Dathu	1678	1786	Parabava	1708
1757	Ishura	1679	1787	Plavunga	1709
1758	Bohudania	1680	1788	Kilaka	1710
1759	Primadi	1681	1789	Sovumia	1711
1760	Vicrama	1682	1790	Satarana	1712
1761	Vishu	1683	1791	Virodicrutu	1713
1762	Chitrabanu	1684	1792	Faridavi	1714
1763	Suabanu	1685	1793	Premmadicha ...	1715
1764	Tarana	1686	1794	Anunda	1716
1765	Partiva	1687	1795	Racshasa	1717
1766	Veya	1688	1796	Nalla	1718
1767	Servajittu	1689	1797	Peingala	1719
1768	Servadavi	1690	1798	Calayncti	1720
1769	Virodi	1691	1799	Sidarti	1721
1770	Vicrotu	1692	1800	Raudri	1722
1771	Cara	1693	1801	Durmati	1723
1772	Nundina	1694	1802	Dundubi	1724
1773	Juja	1695	1803	Rudrodagari... ...	1725
1774	Visia	1696	1804	Ructachi	1726
1775	Munmuttu	1697	1805	Crodona	1727
1776	Durmutti	1698	1806	Acchaya	1728

In *Nepal*, the year 1802 was *Srimoca*; whereas at *Chinroypattana* it was *Dundubi*; a difference of 11 years.

May 19. Appearance of the country.

19th *May*.—I went two *Sultany* cosses to *Sravana Belgula*. To me the country appears to be almost entirely waste, although the *Amildar* will only allow that one fourth part of all the arable land in his district is unoccupied; but it must be always remembered, that very few of the native officers have an idea of any lands being arable, except such as are rated in public accompts. By the way I passed several fine *Tanks*; and the rains have already been so considerable, that one of the *Tanks* has been filled, so as unexpectedly to overflow, and break down its bank, which has deluged all the subjacent fields.

Sravana Belgula

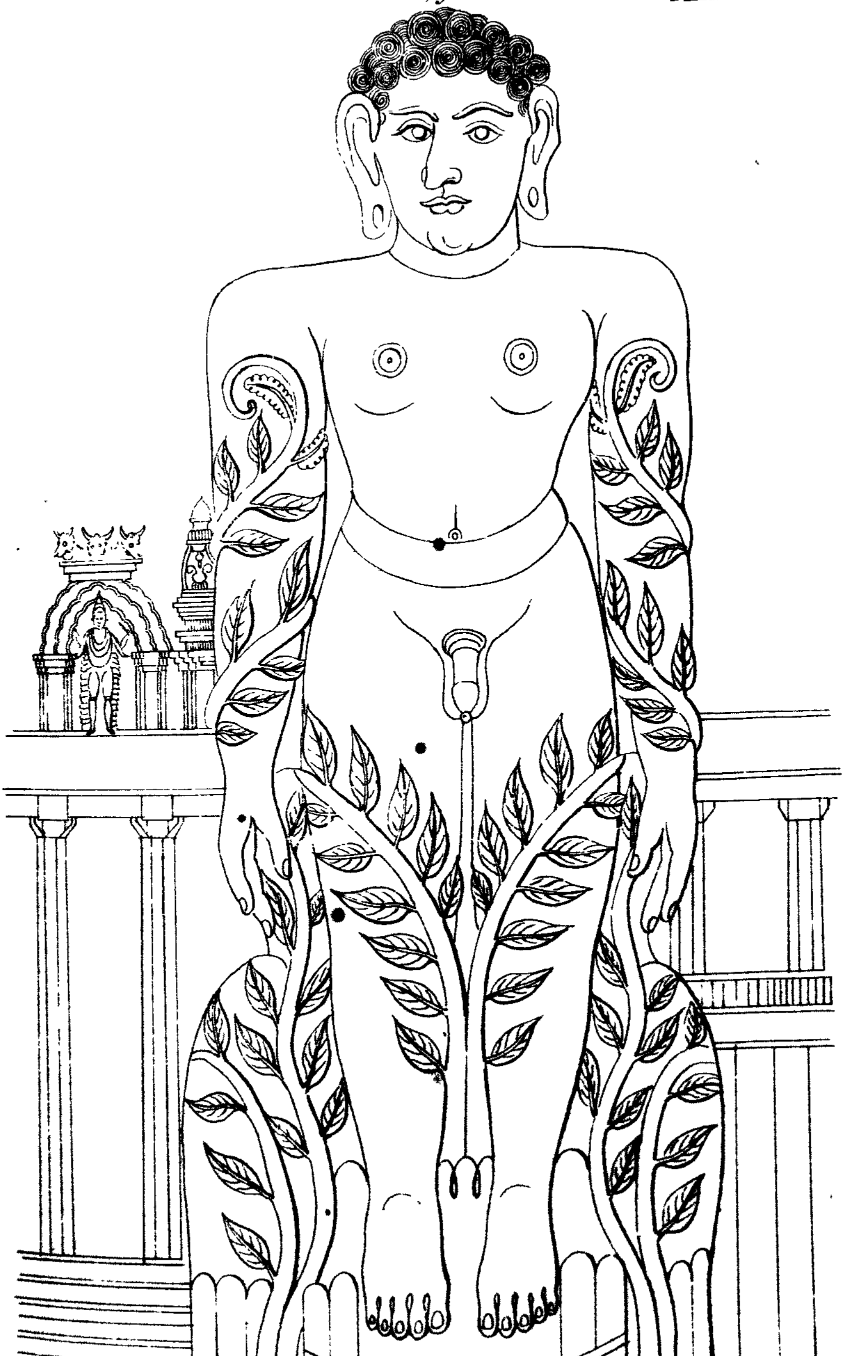
Sravana Belgula is a village containing 120 houses, and its name is said to signify *here is the white Solanum*; for in its neighbourhood a species of that plant grows very copiously.

1801. May 10. *Jain.*

This place is celebrated, as being now the principal seat of the *Jain* worship, which once was so prevalent over the greater part of *India.* In the village is a *Matam* belonging to a *Sannyási,* who claims a precedency over the person with whom I conversed at *Carculla.* This *Sannyási* and his chief disciples were absent when I was at *Sravana Belgula.* Near the village is a *Tank,* a very handsome work. It was built by a *Jain* merchant of *Seringapatam.* Near the village also are two rocky hills. On the one, named *Indra Betta,* is a temple of the kind called *Busty,* named *Bandara*; and a high place (*Betta*), with a colossal image of *Gomutta Raya.* This I was not able to visit, owing to an inflammation that attacked my eyes the day before, and rendered the light almost intolerable. I sent my painter and interpreter to inspect the hill. The painter gave me the accompanying sketch of the image, Plate XXXIV. Figure 84, for the accuracyof which I cannot answer. Its height is seventy feet 3 inches. Sir Arthur Wellesley, who has visited the place lately, thinks the drawing rather more clumsy than the image. He is of opinion, that the rock has been cut until nothing but the image remained. The interpreter brought copies of six inscriptions on stone, which have been given to the Bengal government. I then sent him to the other hill, named *Chandra-giri,* on which there are said to be fifteen *Busties,* or temples belonging to the *Jain.* There he found many inscriptions on stone; but having no time to copy them, he contented himself by noting down the dates and princes reigns of those which were in best condition. A copy of these notes also has been given to the Bengal government. From two of these dates it would appear, that *Vishnu Verdana Raya* continued to reign in the years of *Sal.* 1044 and 1050.

Having assembled the most learned *Jain* here, they gave me a copy of a writing on *Palmira* leaves, which they said was a copy of an inscription on copper belonging to the *Sannyasi,* their *Guru.* It is dated in the year of the *Kaliyugam* 600, and in the reign of *Raja Mulla,* king of the south. A copy has been delivered to the Bengal government. They say, that the *Betta,* or high place, with its colossal image, were made by a certain *Chamunda Raya,* descended from whom were the nine *Belalla Rajas.* The first eight of these princes resided chiefly at *Hully bedu.* The 9th lived at *Tonuru,* and changed his religion to become a worshipper of *Vishnu.* I have already given the history of his conversion, according to the *Bráhmans* of *Tonuru.* I shall now relate what the *Jain* say on the subject. This prince had become enamoured of a dancing girl, who, having been educated in the temples of *Vishnu,* had a great respect for the *Bràhmans* that follow the doctrines of *Vyasa.* This prostitute one day artfully upbraided the king, by saying that his *Guru* would not receive any thing out of his hands. The king insisted that the *Guru* respected him more; and at length it was determined, that if the *Guru* accepted the present of the king, then the favourite should change her religion; but if the present was rejected, that the king

Fig 84



Colofsal image at Sravana Belgula

should receive the *Sri Vaishnavam Bráhmans* as his spiritual guides. 1801. May 19.
On the first visit that the *Guru* made to court, the matter was decided. The king had lost a finger, and it being an abomination with the *Jain Bráhmans* to take any thing from the hands of a mutilated person, the offerings of the prince were rejected with obstinacy. The king then, according to his promise, destroyed all the *Jain* and their temples, and, having taken the name of *Vishnu Verdana*, built many temples in honour of his new god. Among these is that at *Bailuru*, which, according to an inscription already mentioned, was built, or repaired, in the year of *Sal.* 1039, which must have been after the conversion of this prince.

The *Jain* of this place differ considerably from those of *Tulava*. They deny that the *Bunts* of *Tulava* are *Sudras*, and say that they are *Vaisyas*. They will not indeed acknowledge that any *Sudras* belong to their sect. A person of any of the three castes into which they are divided may become a *Sannyasi*, or act as a *Pujari*. The office of *Purohita* only is exclusively in possession of the *Bráhmans*. The *Jain* originally inhabited all the six *Khandas* of the world. This, in which we live, is *Aria*, or *Bharata-khanda*; and at present few *Jain* remain in it; but there are still many in two *Khandas*, named *Puruovideha*, and *Aprovideha*; which, they say, mean the east and west. They judge of these places from their books; for they have had no communication with the *Jain* there, nor can they give any geographical account of their situation. The books in highest authority among the *Jain* are called *Sara*, and they are three in number; the *Gomuta*, the *Triloca*, and the *Ladda Saras*. These they consider as holy, as the other *Bráhmans* do the *Vedas*. They were composed by *Ady Bráhma*, or *Adyswara*, one of the perfect beings who has become a *Sidaru*, and who must not be confounded with the *Bráhma* of the followers of *Vyasa*, who is looked upon by the *Jain* as a *Devata* only, and is the chief servant of *Gomuta Raya*. Next in authority to the *Saras*, is a commentary on them in 24 *Puranas*, or books, composed about 1700 years ago by *Jenaseanu Acharieru*, a *Sannyasi*.

My eyes now became so very painful, that I could bear the light no longer. I was obliged to leave this place, therefore, with a much less perfect knowledge of its antiquities than I could have wished; and I proceeded to *Seringapatam*, where I continued some days in great pain, and unable to read or write. By the way I passed one night at *Singy-gutta*, and another at *Tonuru*. At this last place I obtained from the *Bráhmans* an extract from a book called *Guru Para*, written by *Ram' Anuja Acharya*, partly in *Sanskrit*, and partly in the *Tamul*. The words of the former in the *Grantha* character, those of the latter in the *Arabi*, or vulgar letters. This extract, of which a copy has been delivered to government, contains a life of this extraordinary personage; who, according to his own account, was born in the year of *Sal.* 939. It is therefore certain, that both he and his convert, *Vishnu Verdana*, must have lived to

June 2. *Ram' Anuja Acharya.*

1801. June 2. great ages; as the king would appear, from the inscriptions above mentioned, to have been living in the year of *Sal.* 1050.

June 3. 3d *June.*—My eyes having now so far recovered as to allow me to write, I resolved to set out on my return; and accordingly sent my tents a little way, intending to sleep at them, and in the morning to proceed; but in the afternoon there came a severe storm of thunder, wind, and rain, which kept me another night with my kind and hospitable friends in *Seringapatam.*

Church Sumareh of Mysore. During my stay there, I procured the *Church Sumareh* of the *Mysore Raja's* dominions. It contains a list of villages, public edifices, houses, families, ploughs, and a few other particulars, with a classification of the inhabitants in each *Taluc,* or district. In this, due attention is neither paid to caste nor possession; nor can great reliance be placed on the accuracy of its statements. I have, however, thrown as much as relates to the population and stock into the form of a table; as a nearer approximation to the truth than any that has been yet given.

Abstract of the Church Sumareh of the Territories belonging to the Raja of Mysore.

Talucs in the *Chatrakal Rayada.*	Families.	Houses.	Ploughs.
Kasba Chatrakal	3824	3859	1330
Onaji	2014	2043	1338
Mola-calu-muri	1510	1533	669
Mahi-conda	2995	3080	2417
Heriuru	2305	2403	2224
Gudi-cotay	2967	3019	1620
Canacupay	2918	3072	1915
Bhima-samudra	1186	1382	602
Tulloc	1656	1645	903½
Holalu-caray	2143	2414	1528
Doddery	2297	2297	1144
Muteodu	1355	1409	994
Hosso-durga...	2109	3164	3021
	29289	31320	19705½

1801. June 3.

Talucs in the *Nagara Rayada.*	Families.	Houses.	Ploughs.
Hyder Nagara Kasba	4870	4960	2696
Shiva-mogay, or Shimogay... ...	5368	5368	3209
Surabha	1584	1584	1055
Chandra-gupti	3119	3150	2302
Tavanundy	1354	1455	904
Ananta-para	1896	1899	1303
Honali	2963	2673	2305
Holay-honuru	3219	3219	2413
Udaguni	4452	4452	3098
Shikari-pura	3760	3768	1931
Ikeri and Sagar	4691	4691	3365
Cumashi	3091	3585	1649
China-giri and Baswa-pattana ...	9071	9071	6224
Daniwasa and Lacky-hully ...	4138	4138	2582
Hari-hara	1931	2164	1011
Holalu	595	700	321
Copa	6612	6612	3944
Anawati	3544	3544	2138
Cowl-durga	6615	6615	5017
	72873	73948	46467

Talucs in the *Pattana Rayada.*	Families.	Houses.	Ploughs.
Mahasura Nagara	5653	5748	3552
Mahasura Ashta-gram	4527	4527	2880
Pattana Ashta-gram	5075	5075	3078
Hardena-hully	3701	3701	1592
Bucana-caray	1512	1394	1098
Bettada-pura	3252	3105	2500
Taiuru and Moguru	5054	5056	2770½
Arculagodu Conanuru	4416	4337	3707
Nunjinagodu	963	960	445
Edatory	2188	2188	1678
Priya-pattana	2507	2431	1569
Goruru	2627	2612	2473
Kanyakarna-hully, vulgo Cancan-hully	3728	3633	2996
Hongarnuru...	1186	1186	513½
Ellanduru	2652	4464	829
Callalay	3893	6265	1999
Ki-caray	2079	2114	1664
Cayragodu	4731	4932	2708
Sosila and Talacadu	4204	4324	2338

1801.
June 3.

*Pattana Rayada (continued.)	Families.	Houses.	Ploughs.
Gundalu and Tirucanambi... ...	7025	7235	3914
Capala-durga	583	604	453
Tonuru and Mail-cotay	3153	3196	2385
Maha-rayana-durga	2071	2071	1136
Malawully	4033	4075	2743
Cuttay Malalawady...	2142	2162	1481
Cotagala	1589	1590	1050
Hegodu-devana-cotay	6251	6251	4123
Sali-grama	1177	1261	1015
Narasingha-pura	5664	5893	3448
Maduru	4415	4415	2621
Deva-Raya-Durga	5359	5364	4052
Budhi-cotay...	2971	4347	2297
Ercalavy	2873	4432	2089
Magadi	4426	4326	3522
Sanacul	1092	1557	687
Silagutta	5566	7848	2729
Devund-hully	4449	4976	3857
Bhairawana-durga	934	934	931
Coruta-giri	2092	2182	1122
Chin'rayan'-durga	2399	2849	1838
Chica Bala-pura	5503	8184	3652
China-pattana, vulgo Chenapatam	5069	4950	3514
Colar..	7059	10209	4922
Hosso-cotay...	8408	14681	5666
Madhu-giri	4800	4950	2540
Pauguda	4452	4981	1596
Ambaji-durga	5188	8472	3574
Huliculla	923	1251	796
Nidjagul	3146	5165	2807
Nellavungul..	2766	4498	2416
Gudibunda	4160	4879	2316
Anicul	2484	4147	1590
Doda Bala-pura	7166	10187	5101
Hangaluru	11532	17506	8245
Macha-kali-durga	1766	2320	1447
Jangama-Cotay	2684	3909	1596
Guma-Naiada-Pallia	3187	4147	2005
Malavagul	7623	10012	5990
Rama-giri	1757	1798	1905
Huliuru-durga	4803	4803	3394
Tayculum or Maluro	5988	8783	4081
Tamcuru	3855	3840	2854
Honawully	3492	2664	4545
Budihalu	1598	2181	1130

1801. June 3.

Pattana Rayada (continued.)	Families.	Houses.	Ploughs.
Niddygul	2598	2601	1207
Sira	6673	6593	2756
Nughi-hully...	1786	1786	1416
Caduba	3992	3998	3336
Bailuru	7447	7447	5741
Gubi	1237	1319	781
Grama	1817	1881	1609
Hebburu	2754	4131	2122
Garudana-giri	1449	1673	1103
Banawara	2483	2611	1875
Sakra-pattana	2270	2265	1526
Turiva-caray	3728	4782	2658
Harana-hully	2598	3071	2280
Chin'-raya-pattana	3684	3994	3731
Cunda-Caray	1481	1483	1216
Belluru	2329	3315	1919
Cunigul	3604	3716	2257
Chica-Nayakana-hully	2266	3461	1697
Naga-mangala	4268	4992	2963
Hasina	4505	4459	3484
Hagalawadi	5832	7317	3878
Wostara	3013	3013	2317
Ajim-pura	3563	3855	3011
Terri-caray	3422	3606	2333
Chica Moguluru	4890	5175	3528
Caduru	1782	1833	1106
Yagati	2128	2638	1708
Total...	331126	390152	228642

Recapitulation.			
23 Talucs in Chatrakal Rayada ...	29289	31320	19705½
19 Ditto in Nagara Rayada ...	72873	73948	46467
91 Ditto in Pattana Rayada ...	331129	390152	228642
Total...	433291	495420	294814½

I also procured from my friend Captain Marriote a history of the *Mysore Rajas*, which the present *Dalawai* composed in the *Marattah* language. A copy has been presented to the government of Bengal. History of the Mysore Rajas.

Seringapatam I found recovering apace. Some more openings for parades, and other public uses, have been made in the town; but it still continues to be a sink of nastiness. The suburb called *Shahar Ganjam* is increasing rapidly, and care has been taken to form

1801. June 3. the streets wide and straight. A new magistracy has just now been established, under the superintendence of Captain Symmonds, an establishment that was much wanted; for the officers of the garrison have neither time nor inclination to investigate civil affairs. Provisions are good, and, bread excepted, are cheap. Artificers have been assembled, and are now busy in preparing military stores; such as gun-carriages, leather accoutrements, tents, and cordage of the aloe leaves (*Agave vivipara*). This employs many people, and will turn out a great saving to the Company. Trade is beginning to be restored, and considerable quantities of the produce of *Malabar* again pass this way. The lands are increasing in value; and people, who had formerly deserted to adjacent districts, are now returning, and with the utmost eagerness are reclaiming their former possessions. This climate, however, continues to be very unhealthy; and a damp is thrown on every thing by the sickness of the Resident, Colonel Close. Owing to this, I have been much disappointed by not receiving any answers to the queries which I proposed.

CHAPTER XX.

JOURNEY FROM SERINGAPATAM TO MADRAS.

JUNE 4th.—Early in the morning I left *Seringapatam*; on coming to where my tents had been pitched, I found, that in the storm of the preceding night they had been blown down, and that my people were dispersed into the neighbouring villages. I was, therefore, necessitated to halt a day, in order to put my tents into some kind of repair, and to reassemble my people. In this I had great difficulty, most of them being intoxicated. 1801. June 4th. Storm.

Kari-ghat, near which I halted, is a high peaked hill, which consists chiefly of schistose mica, that is composed of white quartz, and silvery mica, disposed in an undulating manner. When the stone is split in the direction of the *strata*, the mica is most conspicuous, and makes a very beautiful appearance. *Strata of Kari-ghat.*

5th *June*.—I went three cosses to *Banuru*. The country through which I passed belongs to the *Pattana Ashta-gram* district. Near *Kari-ghat*, I passed chiefly through riçe grounds watered by the great canal, and bounded toward the north by low hills at no great distance from the *Cavery*. Two cosses from *Kari-ghat*, I passed the *Array caray*, the great reservoir in which the canal terminates, and which, collecting the superfluous water of that noble work, irrigates much land. From thence to *Banuru* the level country widens, and is mostly arable; but little of it is watered. It looks very well, many of the fields being enclosed, and interspersed with *Babul* trees (*Mimosa indica*, Lamarck). These do not injure the corn growing under them, and hinder so much ground only from being productive as is occupied by the diameter of their stems. Although it does not grow to a large size, the *Babul* is very useful in making the implements of agriculture. Its bark is valuable to the tanner. At reasonable distances, therefore, throughout the *Ragy* fields, young plants of it are allowed to grow. June 5. Appearance of the country. *Babul* tree.

Banuru, under the government of *Hyder*, contained five hundred houses, which are now reduced to one hundred and fifty. In order to prevent it from being of use to Lord Cornwallis, it was plundered by *Tippoo's* troops; and in the late war it was again plundered by the dealers in grain (*Lumbadies*) who followed Colonel Read's detachment. It has a very fine *Tank*, that receives a branch from the great canal. *Banuru.*

Not having been satisfied with the former accounts which I received of the rent of dry-field in this part of the country, I took Rent of dry-field.

1801. June 5. the officers of revenue and the farmers to the field. They say, that the rent varies from two to ten *Sultany Fanams* for what is called a *Wocula* or *Colaga* land according to the quality of the soil, of which there are four distinctions. They confess that in general the *Wocula* land sows more than a *Colaga* of seed, which contains thirty-two *Sultany Seers*. The poorer soil not only pay less rent, but in them the extent of a *Wocula* land is greater than in a rich mould. I found great difficulty in getting them to say any thing upon which I could depend; but at length I got a measurement, which I believe, so far as it goes, may be considered as accurate. I measured a field, said to sow forty-eight *Seers* of *Ragy*, besides *Avaray*, *Tovary*, and the like, and which in the books of revenue is rated at one *Colaga* and a half. The rent was twelve *Fanams* for grain, 25 *per cent.* on the above for straw, and a certain quantity of grain, which was originally paid in kind; but in place of it four *Fanams* are now added to the rent. The whole field measured 109,848 square feet, and paid nineteen *Fanams*, or at the rate of 4*s.* 8½*d.* an acre. It was divided into two portions of 60,480, and 49,368 square feet; which, although thus unequal in size, and apparently of the same soil, were estimated at the same value, and were allowed the same quantity of seed. The soil was of the best quality, and was a fine red earth, which in favourable seasons is very productive of *Ragy*. The seed is at the rate of 2 $\frac{64}{100}$ pecks an acre. This is about 11½ *per cent.* thicker than what was given by my former measurement at *Seringapatam*; but in such accounts as a traveller in *India* can procure, that is no material difference. To this we must add one fourth part of the above quantity of the seed of the accompanying pulses.

June 6. Watered lands. 6th *June*.—I went two *Sultany* cosses to *Sosila*. The country is plain, with a few small hills interspersed. Some of the soil is very sandy; but there is much rice-land, supplied chiefly by canals from the river. That of *Sosila*, according to an old valuation made by *Deva Raya*, amounts to what was estimated to sow five hundred *Candacas* of seed, at 225 *Seers* each. This land is watered by a canal coming from *Ram Swami Anacut*, which dam is two cosses below the island of *Seringapatam*. The farmers commonly employ the dry-seed cultivation, which requires only $\frac{4}{6}$ of the *Candaca* of seed for the extent of land called a *Candaca*. They find, however, by experience, after three or four crops cultivated in this manner, that the soil is improved by taking a transplanted crop. They have only one crop of rice in the year, and that grows in the rainy season, as is usual with land watered by canals from the *Cavery*. Good land produces 25 *Candacas* of rough rice from the *Candaca* land. The rent of the whole, good and bad, is on each *Candaca* land 5½ *Candacas* of rice in the husk for the grain, and 7½ *Fanams* for the straw. The *Candaca* for rice in the husk is worth fifteen *Fanams*. The rent, therefore, is eighty *Fanams* for the *Candaca*; and the average rent and seed makes only 28 *per cent.* of the produce of the

best land, besides the straw, which from the vicinity of *Seringapatam* sells very high, and therefore pays part of the rent. The lowness of this tax, compared with that at *Seringapatam*, where the rice-grounds pay ten seeds, is owing to the want of a sufficient supply of water; so that one quarter of the fields cannot produce rice, and are cultivated for *Ragy*. **1801. June 6.**

Appearance of the country. A little *Jola* and cotton are raised here, in the same manner as on the opposite side of the river, which I have described in the eighth chapter of this Journal. The dry lands seem mostly waste, and the country which I saw to-day is neither so well wooded nor so well enclosed as that through which I passed yesterday. *Sosila* is a town that contains about 250 houses, and has a large fort constructed of mud and rough stones. It is situated on the banks of the *Cavery*, opposite to the junction of the *Kapini*, and has long been subject to the *Mysore* family.

June 7. 7th *June*.—I went three cosses and a half to *Kirigavil*. The country through which I passed is mostly dry arable land; but much of it is waste. I crossed one small ridge of hills, consisting of naked rocks of white granite. *Kirigavil* has once been a large village; but after the affair at *Malawully* the *Sultan*, in order to prevent it from being of use to the army under General Harris, destroyed it, and few of the houses have been rebuilt. The greater part of its inhabitants are *Mussulmans*; for, during the fomer government of the *Mysore Rajas*, it was given in *Jaghire* to a *Mahomedan* family in their service. The heir of this family now lives at the place, and has a considerable pension from the Company, for which he appears to be grateful.

June 8. 8th *June*.—I went three cosses to *Malawully*. All the country through which I passed seems capable of cultivation; and there are vestiges remaining to show that the whole has once been ploughed, and enclosed with quickset hedges. Much of it is now waste, and the fences are very ruinous. There in little irrgation.

Malawully. *Malawally* is a large mud fort, separated into two portions, by a transverse wall. The upper portion, reserved for the *Brahmans*, is in good repair; but the works made to defend the low castes have become ruinous. This place formerly belonged to the *Rajas* of *Talacadu*, which is said to be only four cosses distant; a circumstance which from the maps I cannot explain. The *Talacadu Rajas* were conquered by those of *Mysore*, and this must have happened previous to the year of *Sal*. 1595; as there is here an inscription of that date, in which *Deva Raja Bupala*, commonly called *Deva Raya* the great, is styled sovereign of the country. A copy of this has been given to the Bengal government. After the conquest, a village, half a coss east from *Malawully*, and named *Anacanahully*, was given to the *Talacadu Raja* in *Jaghire*. This the family retained till the government of *Hyder*, when they were obliged to fly; and the people here are ignorant of the place to which they have retired.

Hyder gave *Malawully* in *Jaghire* to his son *Tippoo*, and of course

1801. June 8. Orchards of the late *Sultans*.

it enjoyed considerable favour, and contained a thousand houses. Adjoining to the town is a very fine reservoir, that gives a constant supply of water to a fruit-garden which the *Sultan* planted. This is of great extent; but the soil is poor; and some of it is indeed so bad, that the trees have died, and the ground has been again converted into rice-fields. The establishment kept in this garden consists of one *Daroga*, or superintendent; one writer; and ten labourers, who, as they cultivate the rice-fields, are not able to keep the fruit trees in decent order, much less to prevent the walks from being in a most slovenly condition. The trees are 2400 in number; and of these one half are *Mangoes*. They are loaded with fruit, and some of the oranges are very fine. The *Mangoes* that I saw were but ordinary. One kind, if the account of the superintendent is to be credited, is very curious. It annually produces two crops, one in the hot season, and the other during the rains. In the centre of the garden is a small, but neat cottage *(Bungalo)*, from which grass walks diverge in all directions.

Engagement at *Malawully*.

About two miles south-west from *Malawully* is a large reservoir, near which the *Sultan* made a trial of his army with that of General Harris. After having by this found that his troops were totally inadequate to face the English, he shut himself up in *Seringapatam*. The trial was absurd; but it is said, that *Tippoo* was not to blame. The officers whom he sent to reconnoitre, with the flattery usual among the natives, gave him false information, and induced him to bring his forces down into the open country, on the supposition of the English army being a small advanced party which he could intercept. Before he was undeceived, he had advanced so far, that he must have either engaged, or lost all his guns. Being afraid of dispiriting his people by the sacrifice of his artillery, he preferred the former. While, therefore, he began to withdraw his guns, he formed his army and made an attack with a part of it, which was entirely lost; but with this sacrifice he was able to carry off all his guns, and to bring away the remainder of his troops without much disorder. After the action, *Tippoo* sent and destroyed *Malawully*; and only about 500 of its houses have as yet been rebuilt.

June 9. Appearance of the country.

9th *June*.—I went four long cosses to *Hulluguru*. For the first half of the way the country resembled that through which I came yesterday. Afterwards it became poorer and poorer, and was covered with low *Mimosas*. At one coss distant from *Hulluguru*, is the *Madura* river, which was so much swollen by the rains, that the loaded cattle had some difficulty in fording. It never dries entirely, and has its source from a large *Tank* at *Cataduba*, near *Gudi*. Its proper name is the *Caduba*.

Iron mines.

Between *Malawully* and this river are two villages, *Bana Samudra* and *Halasu-hully*, at which iron ore is smelted; and from thence *Seringapatam* receives its chief supply. I was in search of the forges; but was informed that they were at *Hulluguru*; nor was I undeceived until I had gone too far to return. On my arrival

at *Hulluguru* I found no smelting forges; but a manufacture of iron boilers for sugar works, and of the common implements of agriculture. The iron comes from mines near *Chenapatam* and *Ramagiri*. 1801. June 9.

Hulluguru is an open village, containing about 120 houses. Both in the invasion under Lord Cornwallis, and in that under General Harris, it was burned. It is situated three cosses south from *Capala-durga*, and four north from *Basawana kedu*, a ford in the *Cavery* one coss below the junction of the *Caduba* with that river. The road certainly leads nearer the *Cavery* than, from the situation of the principal stages in the best maps, I have, for want of better authority, placed it. *Hulluguru.*

There are in this neighbourhood two hills producing sandal wood: *Basawana-betta*, in the *Malawully* district, from which this year were procured 250 trees; and *Capala-durga*, which produced somewhat less. No more will be obtainable for eight years. On these hills there are no valuable timber trees, but abundance of *bamboos*.

10th *June*.—I went two *Sultany* cosses to *Satnuru*, through a pretty wide valley, with hills on both sides of the road. The soil is in general poor, and much of it is over-run with low *Mimosas* and other bushes. From *Capala-durga*, *Satnuru* is distant one coss; and is a poor open village, containing about thirty houses, of which ten are occupied by *Mussulmans*. These are now betaking themselves to agriculture. In the public accompts, *Satnuru* is called an *Usul Gram*, or principal village; but in India we must guard against high-sounding names. The chief (*Gauda*) is the poorest creature that I ever saw. Half a coss from *Satnuru* is a forge for smelting the black sand ore of iron. June 10. Appearance of the country.

11th *June*.—I went three cosses to *Cancarana-hully*, commonly called *Cançan-hully*. The former name is universally said by the natives to be the proper one; but the derivation which they give of it seems very forced. *Canicarna*, they say, is the genitive case of *Canicar*, which in the *Tamul* language signifies a proprietor of land: and *Hully*, in the language of *Karnata*, is a village.* The road by which I came passes through a valley, in some places narrow and rocky, and in others wide, partly cultivated, and partly overgrown with low trees. The hills surrounding it are very rocky, and are said to be much infested by tigers. June 11.

Cancan-hully is the residence of an *Amildar*, and it is a pretty fort built by *Jaga-deva Raya* of *Chenna-pattana*, whom, in the tragical story of *Sivana Samudra*, I have already mentioned, as having been in his time one of the most powerful princes of this neighbourhood. A *Bráhman* here possesses a grant of land from *Imudy Ancusha Raya* of *Chenna-pattana*, son of *Pedda Ancusha Raya*, son of *Jaga-Deva Raya*. He acknowledges the superiority of *Sri Rama Deva* of *Penu-conda*, son of *Sri Ranga Raya*, who must have been one of the *Cancan-hully and Jagadeva Raya of Chenna-pattana.*

* The name of this village is properly *Kanya-karna*, composed of two *Sanskrit* words, *Kanya* virgin, or the goddess *Bhawani*, and *Karna* ear.

1801. June 11. royal family of *Vijaya-nagara*, that on the destruction of the empire retired to *Penu-conda*, and by the *Polygars* of this vicinity was nominally acknowledged as a master. This grant is dated in *Sal.* 1546, which, according to *Ramuppa*, is 35 years after the destruction of *Vijaya-nagara*.

Rajas of Mysore or Mahasura.

The descendants of *Jaga-Deva* were subdued by the *Mysore* family. At a temple here are two inscriptions on stone. The one is in the reign of *Chica Deva Raya*, *Wodear* of *Mahasura*, for so in all inscriptions is *Mysore* written. The word is said to signify the great warrior. The other inscription is in the reign of *Deva Raya Wodear*, who in the year of *Sal.* 1589 grants certain lands to a *Jangama's Matam*; for the *Mysore* family are much under the influence of that priesthood, as all the females wear the *Linga*; although the reigning prince declares himself a follower of the *Sri Vaishnavam Bráhmans*.

Krishna Raya of *Mysore* rebuilt the great temple of this place; which, as usual, is supposed to have been of great antiquity. According to fable, it was founded by *Valmica*, a celebrated *Bráhman*, the author of the *Ramayena*, who lived in the *Tritaia Yugam*, many hundred thousand years ago. Previous to the invasion by Lord Cornwallis, the country was fully cultivated. The devastation was commenced by *Tippoo*, who blew up the work in order to prevent them from being useful to the British army. After this the *Anicul Polygar* ravaged the country, Colonel Read having invited him back to his dominions. According to the accounts of the *Amildar*, this *gentle Hindu* has rendered two fifths of the whole arable lands a waste; and, from the small number of inhabitants, the beasts of prey have increased so much, that, during the two last years of the *Sultan's* government, eighty of the inhabitants of *Cancan-hully* were carried away by tigers from within the walls of the fort. These have been since repaired, and the people can now sleep with safety. To keep off these destructive animals, every village in the neighbourhood is strongly fenced with a hedge of thorns. On the approach of the army under General Harris, *Tippoo* burned the town, and he did not allow to escape this favourable opportunity of destroying an idolatrous place of worship. He broke down the *Mandapam*, or portico of the temple, and nothing remains but the gateway, and the shrine; to destroy which, probably his workmen, durst not venture. *Cancan-hully* at present contains about two hundred houses. Before the invasion of Lord Cornwallis there were at least five hundred. It stands on the west side of the *Arkawati* river.

Arkawati.

The river *Arkawati* comes from *Nandi*, and passes through the great *Tank* named *Nagaray caray* at *Doda Bala-pura*. It then passes *Magadi* and *Rama-giri*, and falls into the *Cavery* six cosses from *Cancan-hully*, and one coss below the ford, or passage of *Baswana Keda*. For three months in the hot season, it contains no

stream; but, by digging a little way into the channel, good water may always be procured. 1801.

12th *June.*—Having been troubled with an irregular tertian fever ever since I left *Seringapatam,* I halted to-day at *Cancanhully,* in order to take medicine. I employed my time in taking some account of the state of agriculture, in which I was assisted by the *Amildar.* June 12.

A great impediment to good cultivation arises from a practice, very common in India, of all the farmers living in towns and villages. The fields that are distant from the houses cannot receive manure, and of course produce little, and pay a small rent. It is true, that in the revenue accompts all the lands, according to the quality of the soil, are valued at the same rate; but no one will give more than a fourth of the valuation for lands that are distant from his village. Indeed, the present number of inhabitants is not adequate to cultivate more than the fields that are near the towns. Villages.

Most of the cultivation is performed by the hands of the farmers, and of their own families. A few hired servants, but no slaves, are employed. A man servant gets annually of *Ragy* four *Candacas* of 200 *Seers* of 72 inches, or nearly 26½ bushels, worth at an average 28 *Fanams,* with 12 *Fanams* in money. In all, he receives 40 *Fanams,* or 1*l.* 4*s.* 11½*d.* The hours of work are from 6½ in the morning until noon; and from two in the afternoon until sun-set. The number of holidays allowed is very small; but the servant occasionally gets four or five days to repair his house. At seed time and harvest, a day-labourer gets from ⅓ to ¼ of a *Fanam,* or from 2½*d.* rather more than 1½*d.* a day. Women get daily from ¼ to ⅕ of a *Fanam,* or about 1½*d.* Wages.

No farmer here has more than six ploughs. Those who have four, or more, are reckoned very rich. For each plough, one man and two oxen are kept. The *Amildar* says, that each plough can cultivate ten *Woculas* of dry-field, of which one half will be *Ragy* land; or that it will cultivate five *Colagas* of dry-field, and five of watered land. The chiefs of villages (*Gaudas*) say, that, if a man cultivates five or six *Colagas* of rice land with one plough, he can sow no dry grains. The account of the *Amildar* (chief of a district) is evidently that upon which most dependence ought to be placed. Stock, and size of farms.

I measured a field said to require seven *bullas,* or 1¾ *Woculas* of *Ragy* for seed, and found it to contain 73884 square feet. The *Wocula* or *Colaga* land contains at this rate 42218 square feet; and the plough, if confined to dry-field, should cultivate only $9\frac{7}{10}$ acres. The rate of seed on rice ground has been ascertained at *Raya cotay* by Colonel Read from actual experiment; and, according to my information, the five *Colagas* here, at this rate, would sow almost an acre and a quarter. So that a plough can also cultivate 1¼ acre of rice land, and $4\frac{68}{100}$ acres of dry field. This small quantity, it must be observed, is the estimate of the *Amildar*: that of the *Gaudas* deserves no attention.

1801. June 12. Sugar-cane.

The quantity of watered land here is not considerable; but a large proportion of it is employed to raise sugar-cane. This is all of the *Restali* kind; the *Puttaputti* not having as yet found its way into this district. The rent is paid by a division of the crop. The government should have one half, and usually receives 500 *Seers* from the *Wocula* land, or about 11 cwt. an acre. This is so great a return, that I suspect some mistake. After sugar-cane, the ground must be cultivated with rice one year, before sugar-cane be again taken.

Rice lands.

When, in a favourable season, the *Tanks* are filled, two crops of rice might be procured from the same ground in the course of one year; but the farmers, being few in number, can cultivate one half of the rice grounds only at one season, and the remainder afterwards; nor can the inhabitants of the villages, where dry grains only are cultivated, be induced to settle near the watered lands, although the profits on these are much greater to the farmer than those on *Ragy* land. The natives of *Karnata* seem indeed to be immoderately attached to their birth-place; and so many of them having deserted their native huts during the reign of *Tippoo* is a strong proof of his tyranny.

Ragy and *Shamay*.

Ragy (*Cynosurus corocanus*) pays a fixed rent, which in the lands near the villages varies from five to two *Fanams* a *Wocula* land, which, at the rate of my measurement, would be from 3*s.* 2½*d.* to 1*s.* 3½*d.* an acre. *Shamay* (*Panicum miliare, E. M.*), the next most common crop here, pays one half of the produce as rent. According to the *Amildar's* account, a *Wocula* land of the best quality produces as follows:

Seed *Ragy Wocula*	1	produce	2 *Candacas*	worth	14 *Fanams.*
Avaray, or *Tovary.*	¼	do.	6 *Colágas*	do.	$\frac{4}{18}$

The rent is 5 *Fanams*, or not quite 28 *per cent.* of the produce.

The same land cultivated with *Shamay*, which is done in places that are too distant to manure, requires 1½ *Colaga* of seed, and produces 15 *Colagas*, worth 6 *Fanams*, of which the government gets one half. Although this requires less trouble than the *Ragy*, the farmer has most profit by the latter grain.

Coco-nut plantations.

On the banks of the river above *Cancan-hully*, there are many coco-nut plantations. A few *Arecas* are intermixed; but in a general point of view, these are of no importance. The coco-nuts are sold in the shell to the people of the *Bara-Mahal.* The ground is the property of government; but the trees belong to the farmer; and so long as these grow, the public has no right to the soil. When an old tree dies, another is planted in its stead, and must be watered for six or seven years; after which it begins to bear, and requires no more irrigation. They live for about a century, and are in full vigour for one half of that time. They are never cut until they are dead. These palms, in this country, are never manured with salt, and eight months in the year produce ripe fruit. In the month following the summer solstice, owing to the cold and rain, all the

fruit which is then on the trees falls off; and during the three following months none arrives at maturity; but there are plenty of green nuts, which contain a juice fit for drinking. Each of the trees annually produces from 10 to 200 nuts, which are worth five *Fanams* a hundred. Of the produce the government takes one half. Some of them are planted on dry-field, and others on watered land, and the soil under the trees is cultivated with the appropriate grains. If the trees be sufficiently thick, the crop of grain is poor, and the farmer is allowed to keep the whole; but, if he neglect his gardens, and have only a few trees scattered through a large space of ground, the government takes one half the grain also; which is but reasonable. There is, however, no space defined for each tree; their being too distant, so as to allow a demand of rent for the grain, is left to be determined at the discretion of the *Amildar*, which is an error. The *Amildar* says, that they may be planted at five or six fathoms distance from each other. At 36 feet, an acre will plant about 33 trees; the produce of each of which may be estimated at five *Fanams*, or a little more than three shillings. It is very seldom, however, that a piece of ground is fully planted. 1801. June 12.

13th *June*.—I went three cosses to *Malalawady*, a village of the *Chena-pattana* district. The greater part of the country through which I passed is overgrown with low trees and bushes, and very little of what is arable is actually cultivated. By the way I crossed three times the channel of a small river named the *Swarna-reka*. It comes from *Anicul*, and joins the *Arkawati* a little above *Kanyakarna-hully*. *Malalawady* is a small town, with a ruinous fort. Before the invasion of Lord Cornwallis, it contained three hundred houses. *Tippoo*, in order to prevent its being of use to his enemies, burned it. Most of the wretched inhabitants perished from hunger and disease; and although it met with no disturbance in the last war, it now contains only sixty-eight houses. It stands eight cosses from the *Cavery*, and is surrounded by some good dry fields. *Ragy* and *Horse gram* form the chief part of the crops, sell at about the same price, and are equally used in the common diet of the inhabitants. June 13. State of the country.

14th *June*.—I went four cosses to *Tully*. Soon after leaving *Malalawady*, I entered a hilly country, which continued until I reached *Tully*, the first place in the districts belonging to *Karnata* that have been added to the Company's province of the *Bara-mahal*. To-day I crossed the *Swarna-reka* again three times. June 14. Company's territory.

Tully is an open village near a small fort, and contains about sixty houses. Before the invasion of Lord Cornwallis it contained about five hundred. After the capture of *Bangalore*, many of the inhabitants retired to *Tully*, and obtained from the *Sultan* a guard of five hundred horse, and two thousand foot. The detachment from the British army at *Hoss'uru*, having heard of this, marched all night, and at day-break surprised *Tully*. The garrison were roused in time to be able to run away without loss, for they did not attempt to resist. The assailants obtained a great deal of plunder, and des- *Tully*.

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troyed the town. An officer (*Phousdar*) of *Tippoo's* came some days afterwards, and dug up a large quantity of grain that had been concealed under ground. A party of dealers in grain (*Lumbadies*) came after this, and swept every thing clean; so that a large proportion of the inhabitants perished of hunger. During the government of *Tippoo*, few of the remainder came back; but most of them retired to the *Bara-mahal*, in order to obtain Colonel Read's protection. They are now daily returning.

Denkina-cotay family.

Tully formerly belonged to the *Denkina-cotay Polygar*, who, from being possessed of a town named *Bala-hully*, took the title of *Belalla Raya*; but he was no relation of the *Belallal* monarchs of *Karnata*. He was deprived of his dominions by *Jaga Deva Raya* of *Chena-pattana*, whose successors were in their turn expelled by the *Mysore* family.

Districts annexed to the *Bara-mahal*.

Tully forms a part of the *Denkina-cotay Taluc*, which with several other districts of *Karnata* were annexed to the *Bara-mahal* after the fall of *Seringapatam*. These districts are the *Talucs* of *Hosso-uru*, *Denkina-cotay*, *Kella-mangalan*, *Ratna-giri*, *Vencata-giri-cotay*, and that portion of the *Alumbady Taluc* which lies on the left of the *Cavery*, together with the *Polyams*, or feudatory lordships, of *Pungaru*, *Pedda-Nayakana-Durga*, *Bagaluru*, *Suli-giri* and *Anku-sagiri*.

Polygars.

All the *Polygars* have been restored to their estates, and put on a footing very similar to that of the *Zemindars* of Bengal. They pay a fixed rent, or tribute, for their lordships; but have no jurisdiction over the inhabitants, for whose protection an officer (*Sheristadar*), appointed and paid by the government, resides at each lordship. The establishment of officers of revenue and police are paid by the *Polygars*, whose profits may now be about a fourth of the revenue; but, as the country recovers, these will greatly increase.

In this district the natives of the *Bara-mahal* will not settle, on account of the coldness of the climate during the rainy season, which they find not only very disagreeable but also unhealthy.

State of cultivation.

The chief officer, *Tahsildar*, of *Denkina-cotay*, a very sensible man, says, that at present he has 2700 ploughs, and that it would require 6000 more to cultivate the whole arable land in his district. The proportion of waste land in the other districts of *Karnata*, which have been added to the *Bara-mahal*, is nearly similar; and, so far as I can judge, I think they are in as good a state as the best districts now belonging to the *Mysore Raja*, and infinitely better than any of those through which the *Marattah* army passed.

Barren lands.

The *Tahsildar* estimates the land in his district that is too steep or rocky for the plough to be about a fourth of the whole.

Iron.

In the neighbouring woods some black sand ore is smelted into iron.

Sandal.

South from hence, in the *Alumbady* district, is a hill producing sandal wood. Captain Graham, the collector, sold to a renter all the trees that were fit for cutting, and received for them 300 *Pagodas*.

The condition of the sale was, that only the old full-grown trees should be cut; but the fellow has taken every stick of any size, and there will be no more fit for cutting in less than ten years. 1801. June 14.

Lumbadies. In the woods west from *Tully*, the *Lumbadies*, after a trading expedition, refresh their cattle for eight or ten days. They then carry to *Dravada*, or the low country, a cargo of *Ragy, Avaray, Tovary, Ellu'*, and *Hessaru*, and return from thence with a cargo of salt and a little rice.

Watered lands. In this district all the reservoirs for irrigation are in repair, but seven or eight of them only are of any consequence. Indeed, the cultivation of rice, in these districts annexed to the *Bara-mahal*, is by no means important. There are, however, many *Cuttays*, or small *Tanks* from which the water is raised by machinery to irrigate *Tarkari*, or kitchen gardens, a most valuable kind of cultivation. There are also many plantations of coco-nut and *Areca* palms.

Manufactures. All the manufactures of the annexed districts, except at *Bagaluru*, are coarse, and fit only for the use of the lower classes. A great supply for the rich comes from *Saliem*, and from *Bangaluru*.

Bráhmans. The temple of *Gopala* at *Tully*, as appears by a (*Sunnud*) deed now extant, was built, or rebuilt rather, by *Vira Rajaia*, son of *Dalawai Dodaia*, in the reign of *Krishna Raya Wodear*, the *Curtur* of *Mysore*, and in the year of *Sal.* 1640. Although little more than 80 years old, it has fallen into great decay. Its *Rath*, or chariot, is remarkably indecent, and has now become useless, the whole property of the temple having been reassumed by *Hyder* and *Tippoo*. The *Bráhmans* on this account are not a little clamorus; but the want of endowment seems to have sharpened their wits, and I found among them some very intelligent men.

Mysore family, its divisions, and customs. These *Bráhmans* informed me, that the males of the *Mysore* family are divided into two great branches, the *Raja-bundas*, and the *Callalays*. A *Raja-bunda* man can marry only a *Callalay* girl, and the men of the *Callalay* family are only allowed to marry the daughters of a *Raja-bunda*. The head of the *Raja-bundas* is the *Curtur*, or sovereign. The head of the *Callalays* is the *Dalawai*, whose predecessors, although they always acknowledged the superiority of the *Curtur*, yet frequently possessed all the authority of the state. When any action is said to have been performed by such or such a *Mysore Raja*, it is by no means necessarily implied, that the actor was one of the *Curturs*; for the *Dalawais* also enjoyed the titles of *Mysore Raja*, and *Wodear*. Some of the males of each family are of *Vishnu's* side, and some of them of *Siva's*; but none wear the *Linga*, and all acknowledge the *Bráhmans* as their *Gurus*; and the *Curtur*, immediately on ascending the throne, in whatever religion he may have been educated, always adopts the ceremonies at least of the *Sri-Vaishnávam*. The ladies of both families wear the *Linga*, refuse the authority of the *Bráhmans*, and are under the spiritual guidance of the *Jannamas*. This is one of those circumstances which among any other people would be considered as

1801. June 14. extraordinary, but which in the religion of the *Hindus* are common The *Mysore* family are of *Karnata* extraction, and were not introduced by the *Telingana* princes who so long governed this country.

Rachewar. The *Rajawar*, or *Rachewar*, must not be confounded with the *Raja-bundas*, although they pretend to be *Kshatriyas*. They are originally from the north of India, and probably from the country which in our maps is called *Rachoor*.

Property of the *Brahmans* seized on by government. The *Bráhmans* conducted me to a fine *Tank*, and showed me an inscription, from which it appeared, that this reservoir had been constructed by a *Banijiga* merchant of *Naga-mangala*, a town in this vicinity. The work was done in the reign of *Achuta Raya*, and in the year of *Salivahanam* 1452, which agrees very well with the chronology of *Ramuppa*. The whole ground irrigated from the Tank was originally intended for the use of religious men, *Jangamas*, *Bráhmans*, &c.; but it has now fallen into the powerful hands of the state, which afflicts its former proprietors by applying its revenue to the administration of justice, the defence of the country, and other such worldly purposes.

Irrigation. The reservoir is filled by a small torrent named the *Sanat-kumara*, which comes from a hill at a little distance toward the N.W. and, after going through many *Tanks*, and watering much rice land, falls into the *Cavery* near *Alumbady*.

June 15. Appearance of the country. 15th *June*.—I went three cosses to *Panch-akshara-pura*. This name is derived from some foolish charm, and signifies *the five-letter-city*. The place is a small village without a shop. The country is quite open, and consists mostly of lands fit for cultivation, with many small *Tanks*, and spots of irrigated land, and palm gardens; but, on the whole, it is very bare. One half at least of the arable land is said to be waste; but it seems to be in a better condition than most of the dominions of *Mysore*. *Panch-akshara-pura* was plundered and burned by some part of the British army under Lord Cornwallis; and on the approach of General Harris it suffered the same fate from *Tippoo*. This year an epidemic fever has been very destructive; it raged with the utmost violence for the five months preceding the vernal equinox, but is now on the decline.

June 16. 16th *June*.—I went three cosses to *Kellamangalam*, and by the way crossed two barren ridges covered with wood. Much of the intermediate arable land is waste.

Lumbadies or *Banjaries*. These woods and wastes are much frequented by the traders in grain called *Lumbadies*, or *Banjaries*, who even in the time of peace cannot entirely abstain from plunder. In the small villages near the forests, they occasionally rob, and commit murder; nor is it safe for one or two persons to pass unarmed through places in which they are. On account of their services during the two last wars, they have hitherto been treated with great indulgence. This has added audaciousness to the natural barbarity of their disposition; and, in order to repress their insolence, it was lately necessary to have recourse to a regular military force.

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Districts added to the *Bara-mahal.*

I remained two days at *Kellamangalam,* taking an account of the state of its neighbourhood, as an example of that which prevails in the territories annexed to the *Bara-mahal.*

Kellamangalam.

Kellamangalam is a small fort with two reservoirs, and two suburbs (*Pettas*) and is the residence of a *Tahsildar* ; for the country here is exactly under the same excellent administration that prevails in *Coimbetore.* Before the invasion of Lord Cornwallis, it contained five hundred houses; but, having been burned, both then, and in the late war, most of the inhabitants had dispersed, when Captain Graham, the collector of the *Bara-mahal,* took possession. Since that time three hundred houses have been rebuilt. *Kellamangalam* and *Hosso-uru,* which now form two districts, originally belonged to the *Polygar* of *Bagaluru.* Both these places, being rather weak, were long ago seized upon by the *Mysore Polygars;* but *Bagaluru* resisted all their attempts, and until the government of *Hyder* was not subjected to the authority of *Seringapatam.* In the war of Lord Cornwallis, the heir of *Bagaluru* joined Captain Read, and was very serviceable to him in procuring provisions for the army; and on the peace he followed that gentleman into the *Bara-mahal.* When, by the fall of *Seringapatam, Bagaluru* was annexed to this province, he was restored as *Polygar* (feudatory lord) to such part of the family domains as *Hyder* had seized; but the two districts of *Kellamangalam* and *Hosso-uru* are considered as the property of the state.

Weights and measures.

The *Candaca* here is equal to ... $5\frac{693}{1000}$ bushels.
The *Maund* of *betel-nut* to ... $30\frac{335}{1000}$ lb.
The *Maund* of tobacco and *Jagory* to $24\frac{238}{1000}$ lb.

Average price of produce of the country.

The following is given by the traders, as the average price of the most common articles of commerce, which are chiefly the produce of the country.

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	Sultany Fanams.		Shillings.	Pence and decimal parts.
Rice in the husk, per Candaca	8	per bushel	0	10·523
Ragy, Cynosurus corocanus, do. ...	8	do.	0	10·523
Avaray, Dolichos Lablab, do. ...	11	do.	1	2·46933
Tovary, Cytisus Cajan, do. ...	12	do.	1	3·785
Hessaru, Phaseolus Mungo, do. ...	20	do.	2	2·30825
Udu, Phaseolus Minimoo, Roxb. do	16	do.	1	9·0465
Callay, Cicer arietinum, do. ...	35	do.	3	10 039
Shamay, Panicum miliare, E.M. do	4	do.	0	5·261425
Ellu, Sesamum, do.	30	do.	3	2·56363
Huts' Ellu, Verbesina sativa, Roxb.	14	do.	1	6·46933
Huruli, Dolichos biflorus, do. ...	5	do.	0	6·577
Harulu, Ricinus, do.	18	do.	1	11·6772
Wheat, do.	40	do.	4	4·61425
Danya, a seed like anise ...	16	do.	1	9·0465
Womum, a seed like cummin, do.	32	do.	3	6·093
Salt, do.	28	do.	3	0·93866
Tobacco, per Maund	7	*per Cwt.*	20	1·944
Jagory of sugar-cane, do. ...	4	do.	11	4·7
Boiled Betel-nut, or Areca, do. ...	25	do.	57	2·05

Oxen fit for the plough sell from 30 to 40 *Fanams*, or from 19*s.* 8½*d.* to 1*l.* 4*s.* 11½*d.*

A sheep or goat fit for killing costs three *Fanams*, or 1*s.* 10¼*d.*

Dry-field measure.

Here the dry-field forms by far the greatest part of the arable land. Its extent is estimated by the quantity of *Ragy* seed that it requires. On measuring a field, said to require six *Colagas* of seed, I found it to contain 168,249 square feet; the *Colaga*, therefore, is nearly equal to $\frac{81}{100}$ parts of an acre.

Rent.

In every district, the dry-field of each village, according to its soil, is divided into three qualities. In some villages, of course, the best lands are of no more value than the worst in others; which occasions a great difference in the assessment, or rent. The valuation of the best lands in some villages is ten *Fanáms* a *Colaga*, while in others it is only three. The rent at this place, for the best dry-field, is six *Fanams* the *Colaga*; for the second 4½ *Fanams*; and for the third 3 *Fanams*; or 5*s.* 9¾*d.*, 4*s.* 4½*d.* and 2*s.* 11*d.* an acre.

Farmers forced to cultivate by the *Wudary*.

It is the land near the villages only that can be let at this rate. The farmers are not at all willing to cultivate any of the distant fields; and after they have cultivated as much of the fields near the villages as they are able to do at a proper season, and in a proper manner, it is the peculiar duty of a low village officer, named here the *Wudary*, assisted by the watchman (*Toty*), to compel them to cultivate a certain portion of these remote fields; which receive no

manure and little labour, and pay only a trifling rent, or a share of the produce in kind. 1801.

Crops taken from land of the best quality.

When the rainy season commences early enough, the first quality of dry-field is reserved for *Ragy*, and its accompaniments. If the rains are too late, this land is sown with *Shamay*; and should the season for that grain pass, it may be sown with *Huruli*. The seeds that are sown along with *Ragy* are *Avaray, Tovary, Pundrica (Hibiscus annabinus)*, and *Harulu*. This last is seldom used; but in every field a portion of each of the others is commonly sown.

Ragy, &c.

After the first rain in spring, the field gets a double ploughing; that is once lengthwise, and once across. Eight days afterwards, this is repeated, and then the manure is given. In eight days more it gets two other double ploughings. After a rain in the month following the summer solstice, the seed is sown with the drill, or *Curigay*, and rows of the accompanying grains are put in by means of the pointed *bamboo* (*Sudiky*). The field is then harrowed with a bunch of thrones. On the 15th day afterwards, it is broken with the hoe drawn by oxen, and called here *Guntivay*; and six days after that, the hoe is used in a direction crossing the former at right angles. On the 35th and 40th days, the same is repeated, and the weeds are then removed with a spade. The *Ragy*, four months after sowing, is ripe. It is cut with the straw, and trodden out by oxen. Its straw is reckoned better fodder than that of rice, and the grain in a storehouse will keep ten years; whereas after a third part of that time rice in the husk is quite spoiled. Along with a *Colaga* of *Ragy*, may be sown $1\frac{3}{16}$ *Colaga* of *Avaray* or $\frac{1}{8}$ *Colaga* of *Tovary*. The *Pundrica* is sown in very small quantities. Its bark makes a bad rope for the use of the farm, and its acid leaves are used in the family as a green; but in the account of the produce it may be altogether overlooked. The seed for an acre is $\frac{442}{1000}$ bushel of *Ragy*, with $\frac{525}{10000}$ parts of a bushel of *Avaray*, or $\frac{055}{10000}$ parts of a bushel of *Tovary*. The produce of a *Colaga* land is 20 *Colagas* of *Ragy*, worth 8 *Fanams*, and 5 *Colagas* of *Avaray* worth $2\frac{3}{4}$ *Fanams*; in all, $10\frac{3}{4}$ *Fanams*; which is probably greatly under-rated by the farmers who gave me the account, as it is not double the amount of the rent.

Shamay.

When the rains begin later than usual, this first quality of land, called *Awal Bumi*, is sown with *Shamay*, and produces about the same quantity of that grain as it does of *Ragy*; but this produce is only worth four *Fanams*, which is only two thirds of the rent, and the field next year requires an extraordinary quantity of manure.

Huruli.

When the rains fail altogether, or nearly so, *Huruli* or *Horse-gram* is sown, to prevent or mitigate the horrors of famine.

Second quality of soil, *Ragy, &c.*

On the second quality of dry-field, or *Duim Bumi Ragy* and its accompaniments are frequently sown. The produce is only one half of what it is on the first quality of soil, which would amount to no more than the seed and rent. The farmers here evidently conceal at least one half of the produce; forty seeds of *Ragy* being

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allowed, in the neighbouring districts, as the common produce of a good soil. In place of *Avary* or *Tovary*, or this kind of land, *Navonay*, or common millet (*Panicum italicum*), is sometimes sown in the drills of *Ragy* fields.

Shamay.

On the second quality of soil, however, the most common crop is *Shamay*. After the first rain of spring, the field gets five double ploughings, with an interval of six days between each. *Shamay* is not allowed manure, is sown broad-cast during the two months which follow the summer solstice, is then ploughed in, and the field is harrowed with the rake drawn by oxen. The seed required for a *Wocula* land is half a *Colaga*, or $\frac{22}{1000}$ parts of abushel for an acre. On this soil it produces only 20 seeds, or two *Fanams* worth of grain. The rent is four *Fanams* and a half; from which an estimate may be formed of the veracity of my informers.

On this soil *Hessaru*, *Udu*, *Ellu*, and *Harulu*, are also sown, but in no considerable quantities.

Horse-gram, third quality of land.

In bad seasons *Huruli* is sown on this second quality of land; but in neither the first nor second qualities of soil does it thrive so well as on the poorest fields, where in common seasons it forms the usual crop. In the two months preceding the autumnal equinox, the field gets two double ploughings. The seed is then sown broad-cast, and is covered by the plough. The seed required for a *Colaga* land is half a *Colaga*, or $\frac{221}{1000}$ bushel an acre. The produce is ten seeds, or five *Colagas*, worth $1\frac{1}{4}$ *Fanam*. This is evidently as much underrated as the others, the rent being three *Fanams*.

On this kind of ground, small quantities of *Huts' Ellu* and *Harica* are also sown.

Tarkari Tota, or kitchen-gardens.

The dry-field is frequently let to those who cultivate gardens watered by the *Yatam*. A garden consisting of five *Woculas*, or a little more than three acres, can be watered by one *Yatam*, on the balance of which one man walks. This man and two others are adequate to cultivate the whole. It lets for only one or two *Fanams* a *Wocula* more, than if it were cultivated for *Ragy*. These gardens are partly cultivated by *Tigular*, that is, persons whose ancestors were orginally of *Dravada Desam*, and who live entirely by the profession of gardening; and partly by the farmers who cultivate the fields. The article raised in these gardens for sale are, wheat, *Maize*, *Ragy*, *Tovary*, *Mentea*, or fenugreek, *Nayla*, *Sunicai*, or *Arachis hypogea*, onions, garlic, turmeric, tobacco, poppies, *Cossumba* or *Carthámus tinctorius*, capsicum, and the carminative seeds *Danya* and *Womum*, together with greens, cucurbitaceous fruits, and other kitchen stuffs for the use of the cultivator's families. The articles produced in these gardens, that are exported, are wheat, *Danya*, *Womum*, poppies, *Cossumba*, tobacco, garlic, and turmeric.

Although most of these gardens are dry-field, and are watered by the *Yatam* from wells, yet some are on rice-land, and receive their supply of water from a reservoir. The ground is in constant crop, and often produces at the same time four or five articles.

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Tobacco is cultivated not only in gardens, but also in rice-land and dry-field. In the first and last cases, the cultivator pays the usual rent. When it is cultivated on rice-land, the states gets one half of the produce. When raised on dry-field, the water must be brought in pots from the nearest well. In the month preceding the summer solstice, the field is ploughed fourteen or fifteen times. In the month following, furrows at the distance of two cubits are drawn throughout the field, and are filled with water. In these, young tobacco-plants from the seed-bed are placed, at nine inches distance, and a little dung is put at their roots. The young plants are then covered with broad leaves, and for four times are watered once a day. The leaves having been removed, the plants for three times get water once in four days; and even again on the 20th day, should the rainy season not have then commenced. At the end of the month the whole field is hoed, and the earth is thrown toward the plants in ridges. At the end of the second month this is repeated, and at the same time all the leaves, except from six to nine, are pinched from every plant; and all new leaves, that afterwards shoot from the centre, are once in eight or ten days removed. When it begins to whiten, the tobacco is fit for cutting. After having been cut by the ground, the stems are allowed to lie on the field until next day, when they are spread on a dry place, and exposed to the sun. Here the tobacco remains nine days and nine nights. On the 10th morning some grass is spread on the ground; on this heaps of the tobacco are placed, and the roots are turned toward the circumference. The heap is covered with straw, and pressed down with a large stone. In these heaps the tobacco remains for nine days. The stems are then removed from the leaves, of which from six to ten, according to their size, are made up into a small bundle. These bundles are again placed in a heap, covered with straw, and pressed with a large stone. Every evening the heap is taken down; and, each bundle having been squeezed with the hand, to make it soft, the whole is again replaced as before. On the fifth evening the tobacco is spread out all night to receive the dew. Next day the heap is rebuilt, and this process of heaping, squeezing, and spreading out to the dew, must be in all performed three times; the tobacco is then fit for sale. The larger leaves of this tobacco seems to me to be well cured for the European market, being not so dry as usual with that cured in India, but moist and flexible: of the flavour I am no judge. A *Wocula* land in a *Tarkari* garden produces twenty *Maunds* of cured tobacco, worth according to the merchants, 140 *Fanams*. According to this, an acre produces about 6 cwt. 2 qrs. 25 lb. worth 6*l*. 15*s*. 8½*d*. The cultivators, however, only value their tobacco at five *Fanams* a *Maund*. The tobacco is cut in the 1st and 2nd months after the autumnal equinox. For three successive years, three crops of tobacco may be taken from the same field: but before a fourth crop, some other

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article must intervene for at least one year; and after this plant, even in gardens, no second crop is admitted.

Common manner of cultivating gardens. Garlic.

The most common crop in these gardens is garlic, followed by poppies, *Cossumba*, and radishes. The manner of conducting this will suffice to give an idea of the progress made in gardening, which much exceeds that in managing arable lands. In the month preceding midsummer, the plot intended for garlic is dug with a hoe. It is then dunged, and ten days afterwards is again hoed. It is then divided into small squares, which, in order to confine the water, are separated by low banks; and between every two rows of squares, channels for conveying the water from the *Tank*, or well, are constructed. In each of these squares, lines are then drawn at four inches distance from each other; and in these, at similar distances, are placed single cloves of garlic, which are covered by smoothing the area of the square with the hand. The squares are then filled with water; and once a day, for eight times, this is repeated. On the tenth day a little dung is given; and, when it does not rain, some soils require water every third day, while others only require it once every fourth day. Care must be taken to remove the weeds, as they spring. In the month following the autumnal equinox, the roots are full grown, and are then dug up.

After a month's rest the plot is again hoed and manured. On the tenth day the hoeing is repeated, and then the little squares and channels for watering the plot are formed. The poppy seed, having been mixed with an equal quantity of dust, is then sown in the squares, and covered by drawing the hand over the mould, which gets a little manure and water. At every two cubits distance, all over the small banks that separate the squares, a seed of the *Cossumba* is then placed, and the interstices are sown with radishes. For the first eight days, the squares are allowed, morning and evening, a little water. Afterwards, for twenty days, they are irrigated once in twenty-four hours, and then every fourth day. At the end of the first month, the weeds are removed with the end of a sharp stick, and a little manure is given. Any weeds that afterwards appear must be plucked as they spring.

Radishes.

At the end of the second month the radishes are pulled.

Poppy-seed.

Some few poor *Tigular* make opium; but in general the poppy is allowed to ripen its seed, without receiving injury in its fruit; for the operation of extracting opium diminishes the quantity of seed; and here this is much esteemed, and enters largely into the sweetmeats and cakes which the wealthy eat.

Opium.

In the beginning of the third month the poppies are fit for producing opium. The fruit is scratched with a thorn; and the juice that exudes, after it has thickened by exposure to the air, is scraped off with a shell, and seems to be very good opium. According to the cultivators, this sells at fifteen *Fanams* a *Seer*, which is about fifteen shillings a pound. How such an enormous price can be required for it, I cannot conceive, except on the supposition of the late

government having prohibited, by severe penalties, the use of this intoxicating substance. 1801. June 16.

Where the seed has been allowed to ripen, the husks, or *capsulæ*, are beaten with *Jagory* and water, so as to form an intoxicating liquor, which in the *Marattah* and *Karnata* languages is called *Post*, and which is much used for inebriation both by *Mussulmans* and *Hindus*.

In five months the *Cossumba* pushes out its flowers, which are collected at three different times, between each of which is an interval of eight days. The petals, *flosculi*, are not pulled until they are in state of decay; so that their removal does not prevent the seed from coming to maturity. It is either eaten parched; or beaten with a little water into an emulsion, which is mixed with boiled rice and *Jagory*, and forms a dish called *Paramana*, that is a favourite delicacy with the natives. The *flosculi*, after having been pulled, are dried in the sun two or three days, and are then sold to the dyers at half a *Fanam* for the *Seer*, or at about six pence a pound. *Cossumba.*

The extent of the watered lands is estimated by the quantity of rice which they require for seed. I measured a field, said to require three *Colagas*, and found it to contain 33146 square feet. At this rate, therefore, the *Candaca* of land is $5\frac{074}{1000}$ acres, and the acre requires nearly $1\frac{1}{8}$ bushel of seed. *Watered lands.*

On this ground, rice forms by far the most common crop, and in favourable seasons two crops of this grain are procured from the same field. That which grows in the rainy season is called *Hainu*; that which grows in the hot weather is called *Caru*. When the quantity of water for either crop is not sufficient to irrigate rice, a crop of some other grain is sown in its stead.

The kinds of rice cultivated here are as follow:

Kinds.	Quality.	Months required for this crop.	Crops in which it is cultivated.
Gydda Byra ...	Thick grain ...	6	Hainu and Caru.
Doda Byra ...	Large grain ...	7	Hainu
Doda Caimbutty ...	ditto.	6	ditto
Sanu ditto ...	Small grain ...	6	ditto
Indigay ...	Large grain ...	5	Hainu and Caru.
Potapalu ...	ditto.	4	ditto ditto
Cari Nellu ...	ditto.	4	ditto ditto

1801. June 16. The length of time required for each kind of rice includes the time that is occupied in the whole process of cultivation.

Hainu crop. The *Hainu* crop, which grows in the rainy season, is commonly *Gydda*, or *Doda Byra*; and the former also most usually composes the crop of the dry season, except where the *Doda Byra* has preceded it; in which case, some of the kinds that are more quick of growth must be used. The grains that require six or seven months take two more ploughings than those that come to maturity in less time, which is the only difference in the process of cultivation. The only cultivation in use here is the *Mola*, or sprouted seed.

In order to cultivate *Gydda Byra* in the rainy season, the field is watered in the month preceding midsummer; and then, having been drained, it is ploughed first lengthwise, and then across. Next day the double ploughing is repeated, and the field is inundated. On the fifth day the field is again drained, the double ploughing is repeated, and then the water is again admitted. These steps are repeated on the 8th, 11th, and 14th days. At the 3d or 4th double ploughing the field is manured with dung: and immediately after the last it is smoothed with a plank drawn by oxen (*Maram*), sown broad-cast with the prepared seed, and then covered two inches deep with water. On the third day after sowing, the field is drained, and sprinkled with dry dung, which has been rubbed to dust. On the fifth day an inch of water is admitted, and ever afterwards the field is inundated; the depth of water being increased as the rice grows, and care being taken that the young plants should be never entirely covered. On the 20th day the field is harrowed with the rake drawn by oxen; and on the 20th, 40th, and 90th days, the weeds are removed by the hand. At this last weeding, all superfluous stalks are destroyed by pinching them between the toes. When ripe, this crop is cut with the straw, and put up in heaps. Next day it is trodden out by oxen. The straw is sometimes spoiled by the rain, and thrown into the dung-hill; but at other times it is preserved for fodder.

Caru crop. The cultivation for the crop raised in the dry season is quite similar to that before described; but the ploughing season is different. The straw of this crop is always well preserved, which renders it valuable; but the quantity of grain is smaller.

Produce. On good soils, the crop raised in the wet season produces forty fold of *Gydda Byra*, or almost forty-five bushels an acre, worth 1*l.* 19*s.* 4½*d.* In the crop cultivated in dry weather, on good soils, the produce is thirty seeds, or rather more than 33½ bushels an acre. The rice of both crops keeps equally well, and is of equal value.

Expense of removing the husks. If a man beat out his own grain, a *Candaca* of rough rice gives half a *Candaca* of clean grain; but if he hire labourers, they return him only four-tenths of a *Candaca* of clean rice; so that a fifth of the grain is the expense of removing the husks; and this may be considered as the expense of this operation that is usual in every part of India. The operation is commonly assisted by boiling, and

is performed by beating the grain in a mortar with a stick five or six feet long, three inches in diameter, and shod with iron. 1801. June 16.

The quantity of seed required for bad land is the same with that given to good; and in neither does the quantity actually sown measure a *Seer* more or less than that contained in the estimate of the public accompts. When the rains commence rather late, the crop cultivated immediately afterwards is taken of some of the kinds that grow quickly; otherwise, those which are slow of growth are always preferred. Seed.

When soon after the commencement of the rainy season there is not in the *Tank* a quantity of water sufficient for a crop of rice, in its stead the following grains are cultivated: *Ellu*, *Hessaru*, *Udu*, and *Jola*. Grains substituted in place of the *Hainu* crop.

Of these, *Ellu* is most used. In the second month after the vernal equinox, the field is ploughed twice. On the sixth day it is again ploughed twice; then with the first rain in this, or the following month, the seed is sown broad-cast, and covered with the plough. In three months the crop ripens without farther trouble. It is supposed to injure the following crop of rice. A *Wocula* of land requires $\frac{1}{3}$ *Colaga* of seed, and produces two *Colagas*, or 16 seeds. For an acre, therefore, the seed will be $\frac{14}{100}$ parts of a bushel, and the produce about $2\frac{1}{4}$ bushels, worth 7*s.* $2\frac{1}{2}$*d.* *Sesamum.*

The other grains are cultivated exactly in the same manner.

The seed required for a *Wocula* land is $\frac{1}{4}$ *Colaga* of *Hessaru*, which produces three *Colagas*, or twelve seeds. The acre, therefore, requires $\frac{26}{100}$ parts of a bushel for seed, and produces $3\frac{366}{1000}$ bushels worth 7*s.* $4\frac{1}{2}$*d.* This, next to *Ellu*, is the most usual crop. *Phaseolus mungo.*

Udu is the next most common crop, and its seed is sown of the same thickness; its produce is one-third less. An acre, therefore, produces $2\frac{245}{1000}$ bushels, worth 3*s.* $11\frac{1}{4}$*d.* *Phaseolus minimoo*, Roxb.

The quantity of *Jola* raised is very small. The seed and produce, owing to the imperfect manner of cultivation, are not greater than those of *Udu*. *Holcus sorghum.*

When the water in the *Tank* is not sufficient to raise a crop of rice in the dry season, the following grains are raised in its stead, *Hessaru*, *Callay*, and *Jola*. Grains substituted in place of the *Caru* crop.

Hessaru is the most common. In the month preceding the autumnal equinox, the field is ploughed twice in one day; which on the third day is repeated. On the 6th or 7th day it is ploughed once, the seed is sown broad-cast, and covered by the plough. In three months it ripens. The seed for a *Wocula* land is the same as in the rainy season; but it produces twelve fold, or $3\frac{366}{1000}$ bushels an acre, worth about six shillings. *Phaseolus mungo.*

Much less *Callay* is sown, as it requires the very richest soils. The field, in the month preceding the shortest day, gets four double ploughings, with an interval between each of two days. A few days afterwards the seed is dropped into the furrows, after a plough, at nine inches distance, and is covered by another set of furrows drawn *Cicer arietinum.*

1801. June 16. by a second plough. In three months it ripens. A *Woculz* land requires $\frac{1}{8}$ *Colaga* of seed, and produces one *Colaga*. The seed for an acre is therefore $\frac{14}{100}$ parts of a bushel, and the produce $1\frac{12}{100}$ bushel, worth 4*s.* 3¼*d.*

Holcus sorghum. The quantity of *Jola* sown is very small, and not more productive than in the rainy season.

Division of crop. The rent on watered land is paid by a division of the crop, and the following is the manner in which that is conducted with a *Rashy*, or heap of rice, which usually contains the produce of five *Colaga* lands, and may amount to about 7½ *Candacas*, or more than 400 bushels.

The *Shanaboga*, or village accomptant, gets with a bundle of unthrashed corn.	1
Toty, a watchman, all that adheres to the *Chaps* or marks, and with some straw.	1½
Nirgunty, or conductor of water	2¼
Wudary, a kind of beadle	1½
Gauda, or chief of the village	2
Ditto for the annual sacrifice which he makes to the village god	1
Ditto for making the heaps	1
Washerman, barber, and blacksmith	2½
The temples in the village	1
To poor *Bráhmans*, and other religious mendicants	1
	14¾;

or, on account of the first share, say 15 *Colagas*, or ten *per cent.* The remainder is divided equally between the public and the cultivator; but while this is doing, the latter makes a spring at the heap, and usually carries off about four or five *Colagas*. The government pays for the *Tanks*, or canals, by which the ground is watered, as will be hereafter explained.

Sugar-cane. In this country a considerable quantity of sugar-cane is raised. There are four kinds; *Restali*, *Puttaputti*, *Mara-cabo*, and *Chittuwasun*. The soil required for each kind is different; so that they continue to be all cultivated, although the quantity of *Jagory* given by the two last is a fourth less than that which the two first kinds afford. The *Jagory* of the *Restali* sells higher than that of the others, and the *Puttaputti* cane is preferred for eating without preparation. The *Restali* and *Puttaputti*, with a fifth kind, called *Cari-cabo*, and nearly related to the *Puttaputti*, require a rich soil. The *Mara-cabo* and *Chittuwasun* will grow any where, and will thrive even on a middling soil.

The *Restali* and *Puttaputti* are cultivated as follows: in the month after the shortest day, the field is twice ploughed. On the 4th, 8th, 12th and 16th days, it gets two double ploughings. With a billet of wood the mould is then broken small, and is manured with dung. After this the field is ploughed twice, and, in order to distribute the water, it is formed into ridges with channels between them. These channels are nine inches wide and deep, and nine

inches apart. The cane intended for seed is cut into pieces, each containing three joints. The channels having been previously filled with water, a row of cuttings is laid in each, and sunk into the mud of its bottom, so as just to be covered. The cuttings are placed horizontally, in a line parallel to the channels, and their ends are nine inches from the ends of those which are nearest. Every fifth day the channels are filled with water. On the 10th day the weeds are removed with a spade. On the 20th day the field is hoed, and the earth from the ridges is thrown down upon the plants between the rows, so that channels are formed where at first the ridges were. The leaves of the young canes are at this time about nine inches high, and they require no water until the 30th day; when channels are formed so as to wind in a serpentine manner, with two rows of canes between each bend, as is explained by the sketch in Plate XXXIII. Figure 85. When there is no rain, these channels must be filled with water, once in eight days, until the cane be ripe. When the stems begin to appear, they are brought together in clusters of from three to five, and bound round with leaves, so as entirely to exclude the light; and this must be carefully done, as the stems rise from the ground; otherwise the rind will be thick, and the quantity of juice very small. The crop season beings in the second month after the shortest day of the second year, and in the course of thirty days all the canes must be cut. The space occupied by this crop, therefore, is fourteen months. A *Wocula* land produces eight *Maunds* of *Jagory*, and plants a thousand cuttings. The acre will therefore plant 3942 cuttings, and produce about 6 cwt. 3 qrs. 7 lb. worth 2*l.* 17*s.* 4*d.*

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The *Mara-cabo* and *Chittuwasun,* which is also called *Hullucabo,* are cultivated exactly in the same manner; only they do not require to be tied in clusters, and they ripen a month earlier. A *Wocula* of land produces only five *Maunds* of *Jagory*; so the acre produces 4 cwt. 1 qr. 4 lb. worth 2*l.* 8*s.* 7¾*d.*

Between every two crops of sugar a crop of rice must intervene; but this is reckoned better than usual where no cane is cultivated.

The rent of sugar-cane is also paid by a division of the crop, which is conducted as follows with a field that may produce about 360 *Maunds*, and about which eight or ten farmers will be concerned.

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Daily expense.	*Seers.*	*Fanams.*
Rent of the iron boiler belonging to the government...	1½	1
Mill rent	1½	1
Nirgunty, or conductor of water.	1½	0
Shanaboga, or village accomptant.	1½	0
Iron-smith, as a workman.	1½	0
Ditto as priest, or *Pujari* of *Ganesa*	0¾	0
Oil, butter, and quick-lime	0	0
	1¼	2½

The mill commonly goes 60 days, and produces daily 6 *Maunds*.

	Fanams.
Daily expense at 60 days, *cash* at 2½	150
Jagory at 8¼ *Seers*=*Maunds* 12¾ at 4 *Fanams*... ...	51
	201
Total produce, 360 *Maunds* at 4 *Fanams*	1440
Balance	1239
Annual expense for each mill,	
Custom-house...	5
Carpenter and iron-smith, ...	5
Sacrifice of two lambs, ...	4
	14
This deducted from the former balance, ...	1239
leaves a balance of ... *Fanams*,	1225

which is divided equally between the farmer and the state, as proprietor of the soil.

Plantations of *Areca* palms.

In this part of *Karnata* there are a good many *Betel-nut*, or *Areca* plantations. To carry off the water, the ground is divided by channels into beds. In the centre of each bed is set a row of plantain trees (*Musa*), and at each side a row of young *Arecas*. When these grow up, the plantains are sometimes allowed to remain; and sometimes they are removed, and then the beds are cultivated with the plants called *Tarkari*, especially with turmeric. The man who makes the garden is at the sole expense of inclosing, digging, and planting. Sometimes he also makes the *Tank* or reservoir; but in this case, should the rent be paid by a division of the crop, he gets a fourth part of the government's share; or should the rent be paid in kind, he gets a proportional deduction.

The chief officer of the district (*Tahsildar*), and the farmers, differ exceedingly in their account of the produce. The former says, that a *Candaca* land should plant 2000 *Arecas*, which should produce 50 *Maunds* of boiled nut. One *Bulla* contains 120 nuts in the husk. The *Candaca*, therefore, contains 9600 nuts; which when peeled, measure 8 *Colagas* of raw nut; and these, when boiled, weigh $2\frac{1}{2}$ *Maunds*. The 50 *Maunds* will therefore require 192,000 nuts; so that every tree will give 96 nuts. At this rate, an acre will plant $394\frac{1}{5}$ trees, and produce $37843\frac{2}{10}$ nuts. These, as they come from the tree, will measure $22\frac{443}{1000}$ bushels; when peeled, will measure $8\frac{977}{1000}$ bushels; and when boiled, will weigh 299 lb., worth 7*l*. 12*s*. $9\frac{1}{2}$*d*. I have entered into this detail, that the reader may be able to compare all the foregoing accounts concerning the produce of the *Areca*.

1801. June 16. Produce, according to the officers of government.

The proprietors of the garden allege, that a *Candaca* land will plant only 1000 *Arecas*, and 500 plantain trees. The produce they state at $12\frac{1}{2}$ *Candacas*, or 120,000 nuts; which, for each tree, is at the rate of 120; but they probably reckon only a certain proportion of the whole trees, excluding the others, as not productive, while the *Táhsildar* includes every one.

Produce, according to the cultivators.

All these plantations formerly paid one half of the produce as rent; but *Tippoo* agreed with some of the proprietors for a rent in money, which was to be fixed by a kind of jury, as before described. A *Candaca* of land, in this manner, pays from 100 to 120 *Fanams*, or at the rate of from 15*s*. 6*d*. to 18*s*. 7*d*. an acre. By this, according to the *Tahsildar's* statement, the government is a great loser; as it got at least one half of the produce, or 25 *Maunds* a *Candaca* land, worth 575 *Fanams*. The cultivators acknowledge themselves well pleased with the change. They say, that when they have a fixed rent they are industrious, knowing that the rent must be paid, and that whatever more they can get will be their own; but with the division of crops, however slothful they may be, they are sure of something.

Rent.

The ground cultivated for *Betel-leaf* is rice-land, and pays four *Fanams* a *Colaga*, or 9*s*. 10*d*. an acre; which is much about the actual receipt of the government when the land is cultivated with rice.

Betel-leaf, Piper Betle.

In these districts, the property of all the soil is vested in the state, except in the *Polyams*, and a few small free estates (*Enams*), which have been granted to *Vaidika Bráhmans*, to the temples, to pious Mussulmans, to the petty officers of police and revenue, and to a set of men called *Caray-cuttu Codigy*, who have acquired this property by constructing reservoirs, and keeping them in repair. The *Enams* of the petty officers, such as *Gaudas, Shanabogas, Nirgunties*, and the like, are saleable; but the office, which is hereditary, is always transferred with the land.

Tenures. *Enam*, or free estates.

When a rich man undertakes at his own expense to construct a reservoir for the irrigation of land, he is allowed to hold in free

Lands granted to those who erect *Tanks*, or other public works.

1801. June 16. estate (*Enam*,) and by hereditary right, one-fourth part of the lands so watered; but he is bound to keep the reservoir in repair. Such a proprietor is called *Caray-cuttu Codigy*. The *Tanks* to which there is a person of this kind are notoriously kept in better repair, than those which the government supports, either when they have been constructed originally at the public expense, or when the *Enam* of the founder, from a failure of heirs, has reverted to the sovereign. The reason assigned for this by the natives is perfectly satisfactory. They say, that they can compel the holder of the free estate to perform his duty; but the state has no master. It would seem advisable, therefore, to encourage the rich natives to undertake this business; and where the *Enam* has reverted to the government, it would be better to sell the estate to some other family, than to retain it and repair the *Tank*; and, if the practice of raising the rent by a division of crops be still continued, it would be yet more advantageous for the public to grant the *Caray-cuttu Codigy* one fourth of the government's share of the crop, which ought to be the same as his half of the produce of a fourth part of the land. This would not only prevent the free estates from growing in size, a thing that very usually happens, but it would be a check upon the revenue officers who superintend the division. A few free estates (*Enams*) have been granted to those who have built forts, and undertaken to keep them in repair.

Stock, and size of farms. Five ploughs are here reckoned a great stock. Each plough can cultivate five *Colagas* (1¼ acre) of rice land, and five *Colagas* (3¾ acres) of dry-field. This is all that the farmers will voluntarily undertake to do; but, when they have completely laboured this extent, the beadle (*Wudary*) is sent, and compels the lazy fellows to cultivate five *Colagas* more of dry-field. This is done in a very slovenly manner, as might be expected; and the custom, although established by long practice, seems to me very prejudicial.

Wages. Most of the labour is performed by the farmers and their own families. A few rich men hire yearly servants; and at seed-time and harvest additional daily labourers must be procured. There are no slaves. A ploughman gets annually 3½ *Canadcas* of *Ragy* (20 bushels), worth 28 *Fanams*, with a hut, and 16 *Fanams* in money. His wages, beside a hut, are therefore 1*l.* 7*s.* 5½*d.* The additional expense attending a plough is 3¼ *Fanams* for implements, and 2 seeds for the hire of day-labourers, or one *Candaca* of grain, worth eight *Fanams*, for what the plough will cultivate; in all 55¼ *Fanams*. Add 30 *Fanams* for the rent of the dry field, and we have 85¼ *Fanams* of expense, besides the interest of the value of the two oxen, which, however, is a mere trifle. In an ordinary year, the produce, after deducting the seed and the government's share of rice with the stoppages for village officers, according to the farmers will be:

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	Fanams.
Ragy 55 *Colagas*, worth	22
Avaray 19 *Colagas*	10½
Rice, Hainu crop, 85 *Colagas*	35
Caru crop, 57½ *Colagas*	23
Fanams	90½

This amounts to just about the expense; but I have mentioned that the produce of the dry grains is in this account under-rated by at least one half; and I have not brought into the account the half produce of the five *Colagas* which the farmers are compelled to cultivate, and which costs little or no additional expense.

Condition of servants.

The farmers in general consent to advance money to their servants for marriages, and other ceremonies. This money is repaid by instalments out of the wages that are given in cash; for the people here are not anxious to keep their servants in bondage, by a debt hanging over them. A day-labourer, whether man or woman, gets daily ⅛ *Colaga* of rough rice, or $\frac{356}{1000}$ parts of a bushel. Of this, it must be observed, one half is composed of husk.

Manure.

Leaves are not in use here as a manure. The cattle are never littered; but the straw which they do not eat, the rice straw that rots, with that of *Hessaru*, *Ellu*, and the like, are all collected together in one pit with the dung, ashes, and other soil of the house. A great defect in this manner of procuring manure is, the not using the *Hessaru* straw and leaves for litter. Sheep and goats are at night gathered on the arable lands, but are not confined by folds, which seems also an error.

Cattle.

In this neighbourhood there are no herds of breeding cattle, but every farmer keeps some cows and female buffaloes, the profit of which is clear gain. Many *Bráhmans*, and other rich people, keep, for the milk, a considerable number of both cows and female buffaloes. The males, when fit for labour, are sold; so that a considerable number are exported from hence. The breed is bad, and fit only for the plough. The dealers in grain (*Lumbadies*) have a great many cattle, male and female; but they are no better than the common breed of the villages, and would not be used for carriage by the merchant, still less would they be fit for the camp. The farmers keep a good many sheep and goats, which during the day are fed in the woods, and at night sleep on the arable lands near the villages. Asses are numerous, and lean swine are common. The lower castes in every part of *Karnata* eat pork; the swine, therefore, are not here employed as scavengers, which in some parts of India is the case. The number of cattle in these districts was formerly very great, especially in the villages of *Alumbady* that are surrounded by woods; but the stock has been exceedingly reduced by an epidemic distemper, that raged after Lord Cornwallis invaded the country, and by the depredations which in the last war the troops of the *Nizam* and the *Lumbadies* committed.

1801. June 16. Seasons.

The only account of the seasons that I could procure here was as follows. For one month before, and two after, the vernal equinox, the weather is clear and hot. In the two months of midsummer, the weather is cloudy, and cold, with thunder, lightning, rain, and strong winds from the west. This is the season that now prevails, and to the feelings of a European it is exceedingly agreeable. The air resembles that of a cloudy day in an English summer. In the two months before the autumnal equinox, the rains are very heavy, and come from the west, and the air is not so cold as in the two preceding months. In the two months after the autumnal equinox, there are moderate rains, which probably come from various directions, as on this point the natives have made no observation. These rains are, however, part of the monsoon which comes from *Madras*. In the three remaining months, the weather is cool, with fogs and dews in the mornings, but clear days, which no doubt appear hot to a European.

Strata.

The *strata*, the whole way between *Seringapatam* and *Kellamangala*, lie north and south, and are all vertical. Many of them are grey granite. In the eastern part of *Karnata* I have observed no pot-stone. The nodules of lime-stone are very common, as is also iron-ore in the form of black sand.

June 18. Appearance of the country.

18th *June*.—I went two cosses to *Waragan-hully*. The country consists of low rocky hills overgrown with brushwood. Interspersed are considerable portions of arable land. Of this, according to the *Tahsildar*, the soil of the first or best quality forms a fifth part; of the second quality, two fifths; of the third and fourth qualities, each one fifth.

Produce of the dry field of the first quality.

The soil of the best quality is sown entirely with *Ragy*, and its accompaniments; and should produce forty seeds, which is double the quantity admitted by the cultivators of *Kellamangalam*; but there is no observable difference in the soil, climate, or cultivation; and there can be no doubt, that the crops in the two places are nearly equally productive.

Produce of the second quality.

On the second quality of land are sown *Ragy* (*Cynosurus corocanus*), *Shamay* (*Panicum miliare, E. M.*), *Harica* (*Paspalum frumentaceum*, Roxb.), *Navonay* (*Panicum italicum*), *Ellu* (*Sesamum*), *Udu* (*Phaseolus minimoo*, Roxb.), and *Hessaru* (*Phaseolus mungo*). *Ragy* on this land produces twenty seeds. When the rains fail, it is sown with *Huruli*, and *Huts' Ellu*. *Navonay* produces ten seeds, and the seed is sown as thick as that of *Ragy*. *Shamay* produces the same quantity as *Ragy*, that is, one *Candaca* from a *Colaga* land, and requires only three quarters of a *Colaga* for seed.

Produce of the third quality.

On the third quality of dry-field are sown *Huts' Ellu* (*Verbesina sativa*, Roxb.), *Huruli* (*Dolichos biflorus*), *Udu* (*Phaseolus minimoo*, Roxb.), and *Hessaru* (*Phaseolus mungo*). A *Colaga* land sows a quarter *Colaga*, and produces twenty seeds. *Huruli* gives the same increase, and is sown four times as thick.

1801.
June 18.
Produce of the 4th quality.

On the fourth quality of land nothing is sown except *Huts' Ellu*, and it produces only five seeds.

This account, I believe, may be relied on, and applied to correct the information given at *Keilamangala* relative to dry grains, the produce of which the farmers at that place were most interested to conceal.

Colonel Read

Waragan-hully is a small village in the *Ratna-giri* district, which has been placed under the management of the *Tahsildar* of *Raya-cotay*, one of those native officers who have been brought up under Colonel Read, and who are much superior to those with whom one usually meets in India.

ascertains the quantity of seed.

He says, that at *Raya-cotay*, where all the lands have been actually measured, the quantity of seed required for the different grounds was ascertained by Colonel Read, assisted by the most intelligent natives.

Ragy.

One *Colaga* of *Ragy* was found to sow forty *Guntas*, each of which was 35 feet 2 inches square. Although this is a trifle more than an acre, the chain with which I measured may have stretched a little, so as to make the difference; and I think it probable, that the *Colaga* is exactly an acre. The *Puddy* of *Raya-cotay* contains $52\frac{87}{100}$ cubical inches. The acre therefore sows rather less than $\frac{1}{10}$ of a bushel.

Rice.

Ten square *Guntas*, or one rood, sow a *Colaga* of rice; so that an acre sows $\frac{4}{10}$ of a bushel. This differs greatly from my measurement; yet there is no apparent reason, why the seed should be sown of a different thickness at *Raya-cotay*, and *Kellamangala*. Unless the *Tahsildar* has been mistaken, it is evident that Colonel Read's measurement is the one on which by far the greatest reliance ought to be placed.

Uniformity of measures introduced by Col. Read.

In every part of the country under his management Colonel Read succeeded, without much trouble, in introducing a uniform standard for weights and measures.

Telinga language introduced.

Ratna-giri and *Raya-cotay* formerly belonged to *Jaga-Deva Raya* of *Chena-pattana*. From him they were taken by a *Morattah*; and from him again by the *Mysore Rajas*. The people in this neighbourhood speak about an equal proportion of the dialects of *Telingana* and *Karnata*, although it is situated in the latter country; but the *Polygars* and all their followers were of *Telinga* descent, which has occasioned the mixture.

June 19.
Bara-mahal and *Dravada Desam*.

19th *June*.—I went three cosses to *Raya-cotay*, where my survey ended; but I shall continue to note down what I observed on my return to Madras. *Raya-cotay* is the last place in *Karnata Desam*, and is commonly reckoned in the *Bara-Mahal*, because it was added to that province by the peace with Lord Cornwallis granted to *Tippoo*. The twelve places properly constituting the *Bara-Mahal* are all in *Dravada Desam*, which is bounded on the west by the *Ghats*, and on the east by the sea. These 12 places are, *Krishna-giri*, *Jacadeo Varina-ghada*, *Cavila-ghada*, *Maha-raj'-ghada*, *Bujunga-ghada*, *Catara-ghada*, *Tripaturu*, *Vanambady*, *Gagana-ghada*, *Suda[illegible]shana-ghada*, and

1801. June 19. *Tatucallu*. *Ghada*, it must be observed, signifies a fort, and *Giri* a hill. On the fall of the *Rayaru* of *Anagundi*, the *Bara-mahal*, with *Raya-cotay*, and many other districts, became subject to *Jaga-deva*, the *Polygar* of *Chena-pattana*. On the overthrow of this powerful family, its territories were divided between the *Nabob* of *Cudapa*, or *Curpa*, and the *Rajas* of *Mysore*. The former took the *Bara-mahal*, and the latter the dominions of the *Chena-pattana* family that were situated in *Karnata*. *Hyder* annexed the *Bara-mahal* to the dominions of *Mysore*.

Raya-cotay. In the war of Lord Cornwallis, *Raya-cotay* was taken by Major Gowdie, and has ever since continued in the possession of the British. Being the chief key to *Karnata*, pains have been taken to strengthen the works, which consist of a high fortified rock, and a fort at its bottom. Comfortable houses have been built by the officers, who enjoy very good health, although surrounded by rocks, hills, and woods.

Mildness of the air in *Karnata*. The air of *Raya-cotay* is very temperate. The commanding officer, Colonel Leighton, informed me, that in April last, which was a hot season, and which is the warmest month in the year, Fahrenheit's thermometer in the shade never rose higher than 82°. At the present season, it is usually about 72° at noon, and 64° at day-break.

Language. The people of *Raya-cotay*, being on the frontier, speak a strange mixture of the languages of *Karnata*, of the *Tamuls*, and of the *Telingas*.

June 20. Appearance of the country. 20th *June*.—I went 17 miles to *Krishna-giri*. The road is good, and most of the way leads through narrow defiles among hills covered with brushwood. The descent is very gentle. Towards *Krishna-giri* I crossed the *Dakshana Painakani*, or *Pennar*. The former is the *Sanskrit*, the latter the vulgar name of this river. Near *Krishna-giri* the country consists of a plain, in which are scattered high rocky hills.

Krishna-giri. That on which the fort of *Krishna-giri* is situated is about 700 feet in perpendicular height, and remarkably bare and steep. Much of the plain is rice-ground; but the soil, although well watered, is in general poor. A new village has been founded, excellent roads have been made, and convenient houses for the European gentlemen have been built. The weather at this season is cool, with strong westerly winds, which bring many clouds to mitigate the power of the sun.

June 21. 21st *June*.—I remained at *Krishna-giri* with Captain Graham, the collector, a gentleman educated in the school of Colonel Read. My intention was, to have returned from *Krishna-giri* to *Madras* by the way of *Gingee*; but Captain Graham prevented me from adopting this plan, by informing me, that the country through which I must have passed had become so desolate, that I should find great difficulty in procuring a subsistence.

June 22. Appearance of the country. 22d *June*.—I went twelve miles, by an excellent road, to *Malapaddy*. The country, like that near *Krishna-giri*, consists of a plain, in which are scattered high detached rocky hills. The soil of the

plain is poor, and much of it is waste, and overgrown with brush-wood. *Malapaddy*, although placed in the heart of the *Bara-mahal*, never belonged to that province, and has long been annexed to *Arcot*. The *Nabob* has given it in *Jaghire* to the husband of one of his sisters. It is a very sorry place. Here the language of the *Tamuls* is almost the only one that is spoken. 1801. June 22. *Malapaddy.*

23d *June*.—I went about fifteen miles to *Tripaturu*. The plains on this day's route are wider than those I saw yesterday, and are also better cultivated. The hills are lengthened out into ridges. *Tripaturu* is a large open village, containing some good houses neatly roofed with tiles. This is to be seen no where in *Karnata*, and these roofs have been probably constructed by workmen from *Madras*, where a long intercourse with Europeans has greatly improved the natives in all the arts. At this place an attempt was made by Colonel Read to introduce the manufacture of sugar, and the rearing of silk-worms. A Mr. Light, from the *West Indies*, and a native of *Bengal*, were procured to superintend; but both have failed. June 23. *Tripaturu.*

24th *June*.—I went fourteen miles to *Vanambady*, a village fortified with a mud wall. It looks well, as it is surrounded by trees, of which the *Bara-mahal* has in general very few, and as it is situated on a fine plain surrounded by hills. It is placed on the banks of the *Palar*, or milk river, which in the *Sanskrit* is called *Cshira Nuddi*. It has its rise near *Nandy Durga*, or the *Bull-castle*, and in the rainy season frequently commits great devastation. It rises highest when the rains prevail on the coasts of *Coromandel*. At present its channel is apparently quite dry; but, by digging a small canal in the sand of its bed, a stream of water is procured. In *Vanambady* are two temples of some note. At that of *Iswara* are above twenty inscriptions on stone, some of which are said to be of great antiquity, being of the age of *Vicrama Ditya*. At the temple of *Vishnu*, under the name of *Allaha Perumal*, are six inscriptions carved on the wall. I had only time to procure copies of three, and unfortunately commenced with such as are of little importance. One, of which a copy has been given to the Bengal government, contains the grant of a village to *Allaha Perumal*, from *Narasingha Deva Maha Raya*, dated the 2d of *Magha* of the year *Servajittu*, but no era is annexed. The second, of which also a copy has been given to government, is dated *Parabova* of *Sal.* 1460, *Chaitra* 12th. By this, *Naia Deva*, son of *Vira Pritapa Sedisava Rayaru*, gives a village to *Allaha Perumal* on account of the decease of his father. The third, also delivered to government, is dated 15th *Kartika* of the year *Visuavasu*, being of the era of *Sal.* 1464. By this, *Vencatadri Raja*, and *Rama Raja*, grant each a village to the god, on account of the decease of their departed parent, *Sedasiva Raya*. These persons granting the villages, probably, were of the house of *Anagundi*, although this is not ascertained by any thing in the inscriptions; but the date cannot be reconciled with the chronology of *Ramuppa*. June 24. *Vanambady.* Many inscriptions on stone.

1801. June 24. Appearance of the country. The country through which I came to-day is tolerably well cultivated, and resembles what I saw yesterday. The air, although warmer than at *Raya-cotay*, is still temperate; for clouds and strong westerly winds moderate the violence of the sun.

June 25. *Amboor.* 25th *June.*— I went thirteen miles to *Amboor.* The road leads through a fine valley watered by the *Palar.* Near *Vunambady,* this valley seems to be tolerably well cultivated and inhabited. Near *Amboor,* it is overgrown with *Palmira* trees (*Borassus*), and seems to be mostly waste. This is, no doubt, owing to the devastation which *Hyder* committed in his two inroads into what we call the *Carnatic*; for near *Amboor* the *Baru-mahal* ends, and the territories of *Arcot* commence. The road all the way from *Krishna-giri* is excellent, and very level. *Amboor,* having been long a frontier place, is a town built under the protection of a hill fort that still retains a British garrison.

Jesuit Missionary. I here found a Jesuit Missionary, a native of France. He has a small flock, who seem to be in great poverty; but, by their contributions, I imagine they are able to support him. He is educating one of them to be his successor, as *Guru*; for so he is called by his converts. He favoured me with his company at dinner, and was a very lively, pleasant man. To avoid offending the prejudices of the natives, he abstains from the use of beef.

June 26. *Anavun Nelluru.* 26th *June.*—I went thirteen miles to a small village named *Anavun Nelluru.* The road is good, and leads through a very pretty valley, watered by the *Palar.* There is a good deal of rice-land, most of which seems to be occupied; but the dry-field forms a large part of the arable land, and is much neglected.

Indigo. A good deal of indigo has been lately introduced. It grows on the higher parts of the rice-land, from which, in the rainy season, a crop of grain will be procured.

Irrigation. The whole of the rice land is irrigated by means of canals, which are either dug across the dry channels of rivers, below the surface of which a small stream is always found; or conducted from places in which subterraneous springs have been discovered. These canals are here called *Cashay.* A canal supplied from a river, in which there is a perennial stream above ground, is in the *Tamul* language called *Vakial.*

June 27 *Viranchipura.* 27th *June.*—I went eleven miles down the *Palar* to *Viranchipura,* an open town situated on the south side of the river. It formerly was a large place, and possessed many public buildings, both *Hindu* and *Mussulman;* but all these have suffered much, from the towns having been repeatedly destroyed in *Hyder's* wars. A large temple of *Iswara* has escaped, having been surrounded by a very large and strong wall of cut granite, that excluded irregulars; and *Hyder* took no delight in the destruction of temples. On the walls of this temple, there are many inscriptions, which are written in the *Grantham* character, and some of them are said to be of great antiquity. The *Bráhmans* promised to send me copies, but this

MOIZ UD DEEN,

Second legitimate Son of Tippoo Sultan.

SULTAN MOHAY UD DEEN

Eldest legitimate Son of Tippoo Sultan.

FATAH HYDER.

The eldest, but illegitimate Son of Tippoo Sultan.

they neglected to do. They were very clamorous in complaining against the *Nabob*, although he annually allows the temple 2000 *Pagodas*, or 800*l*. The town seems to be recovering fast. 1801. June 27.

28th *June*.—I went eight miles, and halted at a little distance east from *Vellore*. There I visited the buildings preparing for the families of *Hyder* and *Tippoo*. They are built with accommodations similar to those used by *Mussulmans*; and the architecture is more elegant, and the apartments are more commodious, than those in the palace of *Seringapatam*. The building would have been still more elegant, had not the custom of those who were to occupy it required long dead walls, and narrow staircases, with other things that by us are considered as deformities. June 28. *Vellore*.

In order to give the reader a correct idea of the countenance of the Indian *Mussulmans*, I have procured the accompanying ENGRAVINGS (PLATES XXXV. XXXVI. XXXVII.) of *Fatah Hyder*, the eldest but illegitimate son of *Tippoo*, said to be remarkably like his father, and of *Sultan Mohay ud Deen*, and *Moiz ud Deen*, the two eldest legitimate sons of that prince.

29th *June*.—I went about fourteen miles to *Wallaja-petta*, or *Wallaj'-abád*, on the north side of the river, about two miles from *Arcot*. The valley leading from *Vanambady* to *Vellóre*, or *Velluru*, opens here into a level country containing both dry-field and rice-ground. The weather in the day, although there are strong winds from the west, is very hot. There are occasional showers of rain, that have brought forward the crop of *Bajera (Holcus spicatus)*, which is that commonly raised on the dry-field. June 29. *Wallaja-petta*.

30th *June*.—I remained at *Wallaja-petta*, in order to give my people rest. This town was built by the orders of the late *Nabob*, *Mahummed Aly Wallaja*, and called after his own name. The people were removed from *Laai-petta* and other places, which with the *Mussulman* princes of India is a common practice. Soon after it had the misfortune to fall into the hands of *Hyder*; but on the restoration of peace, the *Nabob* heaped benefits on his favourite, and it has risen to a great size, and is regularly built, rich, and populous. Its fortifications are mouldering to decay: but, as the place is now far from an enemy, it is not soon likely to regret the loss. Almost the whole of the trade, between the country above the *Ghats* and the sea-coast, centres here; and a larger assortment of goods can, it is said, be procured at *Wallaja-petta* than in any town of the peninsula, *Madras* itself not excepted. Provisions are plenty and cheap. June 30.

1st *July*.—I went a short stage to *Wochuru Choultry*, having passed through a fine country very well irrigated from numerous reservoirs. Owing to the excellent supply of water, some of the rice-ground is even now in crop. July 1. Appearance of the country.

Wochuru is an inn *Choultry* with a pent roof of tiles, and was built for the accommodation of travellers. This kind of building, in the native language, is called *Chauvadi*, from which perhaps the *Choultry*.

1801 July 1. English term *Choultry* is derived. The same kind of building, which consists of one long hall open in front, is also used by the native officers, for the place in which they transact business. When behind the hall there is a square court, surrounded by buildings for the farther accommodation of travellers, the inn is by the natives called *Chitteram*; by the English this also is called *Choultry*. Every where within 40 or 50 miles of *Madras* such useful buildings are very common, and have been erected and endowed by the rich native merchants of that flourishing city.

At *Wochuru* there is also a very handsome *Tank*, formed by digging a square cavity into the soil. Its sides are lined entirely with cut granite in the form of stairs. Such a *Tank*, when intended for the accommodation of travellers, or of the people of the neighbourhood, in the *Tamul* language is called *Colam*; in the *Karnata* dialect it is called *Cuntay*; and by the *Telingas*, and southern Mussulmans, it would be called *Gunta*. Similar *Tanks*, that are within the walls of a *Covil*, or temple, are called by the *Sanskrit* names *Calliany*, *Sarovara*, *Tirta* or *Puscarany*.

July 2. 2d *July*.—I entered the Company's *Jaghire*, and went to *Conjeveram*, which by the natives is universally called *Kunji*. The country has more verdure than it had last year when I visited it. The rains usual about this season had not then commenced; but they have this year been unusually favourable.

Weather. All over the coast of *Coromandel*, it is common in May, June, and July, to have occasional showers, and at some period of that time to have even three or four days heavy rain, which somewhat cools the air, and enables the cultivation for dry grains to take place. The weather now, although hot, is cloudy, with strong winds from the west. Such weather usually prevails about this time for eight or ten days; and at *Tanjore* is well known to precede the rising of the *Cavery*, which is at the highest when the periodical rains prevail in *Mysore*. These clouds seem to be an extension of those which before and during the violence of the monsoon collect over the western *Ghats*. When these have poured down, and have occasioned the swelling of the river, the rains even in *Karnata* abate, and the weather clears in the countries below the eastern *Ghats*, until October, when the easterly monsoon brings on the proper rainy season of the sea-coast. In the interval, the weather at *Madras* is often excessively hot, and the sea breeze frequently fails; or, what occasions more uneasiness, blows from the south, and is then called the long-shore wind.

July 3. Dubashies of Madras. 3d *July*.—I went to *Vira Permal Pillay's Chitteram*, or inn built by *Vira Permal*, a *Madras Dubashy*. At *Madras* there are three castes of *Sudras*, who act as *Dubashies*, that is, interpreters. The persons of the first caste seem to be somewhat analogous to the *Kayastas* of Bengal, and are called *Canaca-pillays*, which by us is commonly written *Canacopily* or *Canacoply*; and this name by Europeans is also frequently extended to all persons, whether

Bráhmans or *Sudras,* who follow the same profession. The *Canacapillays* are a caste of the *Tumuls* of *Dravada,* and throughout that *Dèsam* were originally in possession of the hereditary office of village accomptant, in the same manner as the *Bráhmans* possess the similar office of *Shanaboga* above the *Ghats,* or as the *Kayastas* of Bengal possessed the analogous office of *Canongó.* The next caste, who follow the business of *Dubashies,* are the more learned *Goalas,* or *Yadavas.* Some of these are of *Telinga,* and others of *Dravada* extraction, and the proper business of the caste is to tend herds of black cattle. The *Dubashies* of this caste, however, have given up all communion with those who follow the original profession of their tribe; and value themselves very highly, as being related to the god *Krishna,* who was born of a *Goala* woman. On this account they all assume some of the names of *Vishnu,* such as *Rama Pillay, Narayana Pillay,* &c. The third caste, who perform the business of *Dubashies,* are the *Vaylalars,* of the labouring class among whom I have in the tenth chapter of this Journal, Vol. II., p. 38 given an account. Those who are men of learning have separated from the cultivators, and call themselves *Modalies.* They are a *Tamul* tribe, and more numerous in *Chëra Chóla,* and *Pandara,* and I believe in the adjacent island of *Ceylon,* than in *Dravada.* Each of these castes pretends to a superiority of rank over the others; and as, at Madras, they are all possessed of great wealth, many ingenious arguments from the books which they esteem sacred have been advanced, to support their various pretensions, which frequently occasion bickerings, and always great heart-burnings and bad neighbourhood. The pride of caste is indeed that which is most prevalent with the *Hindus;* and there is scarcely a creature so wretched or ignorant, but who on this account holds in the utmost contempt many persons in easy circumstances, and respectable situations; for the rank of the different castes is by no means well ascertained; the only one point that is clear is, the immensurable superiority of the *Bráhmans* above the rest of mankind.

1801. July 3.

4th *July.*—I went to *Sri Permaturu,* or *Varam-phuthur,* a celebrated temple and *Agrarum,* or abode of *Bráhmans,* which is situated about a mile out of the road; but I was desirous of visiting a place rendered remarkable by its having given birth to *Ráma-Anuja Achárya.* The temple has from government an annual allowance of 250 *Pagodas,* or 100*l.*; but this would be totally inadequate to the maintenance of the fifty-three families of *Vaidika Sri Vaishnavam Bráhmans* who live in the place. By the contributions of the sect, however, they are supported in considerable affluence. The *Amin,* or civil officer, having assembled the *Bráhmans* whom he considered as most learned, they said, that originally there was at the place a small temple of *Vishnu;* but that, after the celebrity of *Ráma Anuja* had thrown lustre on the place of his nativity, the temple was enlarged, and received an image of this great teacher. In the reign of *Krishna Ráyaru* it was enlarged to the present size, which is very consider-

July 4. *Sri Permaturu.*

1801. July 4.

able. This was done by *Paran Cusha*, a *Yecang*, that is to say, a *Satany* who has assumed *Sannyási*, and dedicated his life to religious austerity. It was afterwards repaired by a *Dubashy* of Madras; and at present is putting in complete order, at the joint expense of a *Dubashy* and a *Satany*. There are at this place no inscriptions of any antiquity; but it is reported, that when *Paran Cusha* enlarged the temple some were buried in the earth. Near this is the spot where the great man was born. A stone chamber has been erected over it; and between this and the temple is one of the finest *Mandapas*, or porticos, that I have seen erected by *Hindus*. It is of great size, and supported by many columns; but, as usual, it is neglected, and has become ruinous and dirty. Adjoining to the place where *Ráma Anuja* was born, is a temple dedicated to a prophet named *Curat' Alvar*.

Eighteen prophets worshipped by the *Sri Vaishnavam*.

The *Sri Vaishnavam* believe in eighteen great prophets, ten of whom are called *Alvars*, and eight *Achàryas*. Some of the *Alvars* were *Sudras;* nay even *Parriar* have arrived at this dignity; but all the *Achàryas* were *Bráhmans*, and among others was *Ráma Anuja*. In order to prove himself an *Alvar*, a man must abstain from women, and all carnal delights; and give a proof of his being divinely inspired, by foretelling some very great and extraordinary event that is about to take place. When this has happened, and his inspiration has been thus fully established, he delivers in poetry some histories concerning the gods; and by the *Sri Vaishnava* these are received as canonical. This sect erect images of the eighteen prophets; nor can a *Bráhman* of this kind perform worship, eat, or sleep, in any temple where such an image is not to be found. From the *Sri Vaishnavam* these images receive divine honours, but not from either *Smartal* or *Madual*; nor do these two sects acknowledge the prophecies to be of divine authority. It is, however, admitted by all parties, that these personages are mentioned in the eighteen *Puranas* as very holy and extraordinary men.

Eighteen *Puranas*.

Although the *Bráhmans* of the south frequently asserted to me, that different events of the *Kali-yugam* are mentioned in the eighteen *Puranas*, yet I was inclined to doubt this; as they thought, perhaps, to confirm the truth of what they were relating, by referring to so high an authority. Having consulted a learned *Pandit* in *Bengal*, he says that my doubts are well founded, and that in the writings published by *Vyása* no particulars of the history of this degenerate age are to be found. The books quoted by the *Bráhmans* of the south as the eighteen *Puranas*, were probably the *Ityhass*, or the *Upu-purana*, which give an account of the transactions of the *Kali-yugam*. Other learned persons allege, that the *Upu-purana* is also the work of *Vyása*; for all such matters are subject to innumerable doubts.

Guru Para, written by *Ráma Anuja*.

I have already mentioned, that the book called *Guru Para*, or *Guru Parum Paray*, of which, while at *Tonuru*, I obtained an extract that contained the life of *Rama Anuja*, is said to have been

written by that personage. In it, according to the *Bráhmans* of this native place, he modestly writes, that he is an incarnation of four deities. The book contains also a similar account of the lives of the other seventeen prophets; and the *Bráhmans* here look upon it as of excellent authority, although several of these prophets lived after *Rama Anuja* was dead. The *Bráhmans* here, on consulting their *Copy* of the *Guru Para*, agree with those of *Tonuru* concerning the year in which their chief was born, namely, in the year of *Sal.* 939, *A. D.* 1016. 1801. July 4.

Sri Vaishnavam. The *Sri Vaishnavam* look upon their *Gurus*, both *Sannyasis* and hereditary, as men highly favoured by God; but not actual divinities. They have the power of exempting from future transmigrations all persons on whom they bestow *Upadesa* and *Chakrantikam*. The souls of the happy people who are thus exempted from change live in a heaven called *Veicunta*, and there serve *Vishnu*. This sect do not admit of the absorption of the spirits of good men into the essence of the deity, a doctrine that seems to prevail chiefly among the worshippers of *Siva*. The *Sri Vaishnavam* say, that *Brahma* is the son of *Vishnu*, and the father of *Siva*; but they pray to *Vishnu* alone, as the preserver of all living beings, and as the supreme deity.

Heretical sects. Before the appearance of *Rama Anuja*, the most prevailing sects in this neighbourhood were the followers of *Buddha*, and the *Charvaca*. Both now seem to have become quite extinct.

Rent and tenures of rice-ground. The officer of revenue (*Amin*) says, that the *Tank* here waters 1000 acres of land, each containing 100 *Guntas* of 24 feet square. The extent of irrigated ground is therefore rather more than 1322 English acres. This land pays 1700 *Pagodas* a year to the government, and 600 *Pagodas* to temples, revenue officers, &c. &c; in all, 2300 *Pagodas*, worth at the Tower Mint 845*l.* 12*s.* 10½*d.*, which is at the rate of 12*s.* 9½*d.* an acre. This land is private property, and may be either sold or mortgaged, in a manner exactly similar to that used in *Malabar*. An acre, according the nature of the soil, will mortgage for from 5 to 100 *Pagodas*; which shows, that the rent is very moderate, considered as such; but considered as a land tax it must be allowed to be very high. Each village now pays a fixed rent, for which all the proprietors are jointly answerable. Among themselves, they determine each man's share by some old valuations.

Rájá Paditti. The hereditary *Canaca-pillay* here gave me a copy of an old *Raja Paditti* belonging to his family. A copy has been delivered to government, and I here give a translation.

"The form of the *Kali-yugam* will be as follows. The *Kali-yugam* will contain 432,000 years. The men of this age will be four cubits high, and live 100 years.

Dynasty of the Deva Rayas. Particulars of the names of the *Rajas* in the *Kali-yugam*.

Parachittu Maha Raja, grandson of Dharma Raja, and son of Abimunna, reigned ... ... 64 years.
Jennamya Jya. 143
Raja Narendra 140
Saringa Panry. 214

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Susta Studica Maha Raja.	154
Vicrama Ditay	1746
Salivahanam.	80
Boja Raya	144
Danta Chicraverti.	62
Tribuvana Chicraverti.	57
Shanda Deva Maha Raja.	60

Total of the government of 11 *Deva Rajas*, 2864."

The whole account of this dynasty is evidently full of error and confusion. Some person of no discernment has probably extracted it from the books esteemed sacred. The eras of *Vicrama* and *Salivahanam*, two of the best established points in *Hindu* chronology, are by this account most horribly distorted. The author has followed an opinion, commonly prevailing among the *Hindus*, of a great monarchy, that extended all over *India* under princes descended from *Yudishtara* the son of *Pandu*, and which commenced with the beginning of the *Kali-yugam*; that is, according to the chronology usually adopted here, 3100 years before the birth of Christ; but with regard to the era of the *Kali-yugam* the *Bráhmans* differ considerably. This dynasty, the author supposes to have reigned 2864 years, or until the year 236 before the birth of Christ. However, to return to our author.

Dynasty of *Sholun Rayaru*, kings of *Naraputti*.

"After this *Naraputti*, *Gaja-putti*, and *Ashaputti*, three thrones were established.

Naraputti throne was possessed by

Utinga Sholun	32 years.
Culatunga Sholun	18
Rajaendra Sholun	11
Tiramudi Canda Sholun... ...	13
Carical Sholun...	21
Arundavan Sholun....	13
Womyuru Sholun	17
Shayngun Sholun	15
Munalinda Sholun	12
Mavanedi Canda Sholun... ...	15
Vacula Sholun...	14
Alaperinda Sholun	8
Tiraveratu Sholun	15
Arleunu Cadamay Canda Sholun.	62
Jeyum Canda Sholun.	12
Kirimi Canda Sholun.	20
Tondaman Sholun	12
Buddum Cuttum Sholun ...	45
Shomuman Sholun	11
Ghingui Conda Sholun	11
Sundra Pandia Sholun	40
Pottapu Sholun	24

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Shingu Wullanda Sholun ...	14
Deva Sholun	10
Shaynahutti Sholun...	15
Vira Sholun	30
Shayngara Sholun	24

Total of the Sholun Rajas 27, who reigned 534 years."

Here we have a dynasty that no doubt existed, and of which many traces remain in *Karnata, Dravada*, and the countries toward the south. It is probably not mentioned by *Ramuppa*, because *Tulava* did not belong to the throne of *Naraputti*. Our author makes its end to have been in the year of our Lord 298. The tradition at *Jamagullu*, where one of the temples built by a prince of this family remains, makes them to have been about five centuries later. There is also some reason to think, that the *Sholun Permal*, from whom *Cheruman Perumal*, the viceroy of *Malayala*, rebelled, was one of this family. If so, the tradition of *Malayala* agrees with that of *Jamagullu*, and fixes the last princes of this family to have lived about a thousand years ago. After the overthrow of this *Sholun* dynasty, *Karnata* and *Dravada* seem to have been separated from the southern portions of the *Naraputti* sovereignty; for our author goes on thus:

Dynasty of the *Maha Rajas* who governed *Madura, Tanjore*, and *Coimbetore*.

" Chera, Chola, and Pandava Desas were possessed by

Udiamara Maha Raja... ...	18 years.
Jeyadeva M. R.	19
Lohita M. R.	10
Gungadira M. R.	11
Vama Deva M. R.	13
Terupulinda M. R.	34
Puttaviram M. R.	43
Sri Devanata M. R.	38
Malica Arjina M. R.	7
Adi Raer	13
Maha Sustra M. R.	16
Visuweshura M. R.	8
Chindrabuti M. R.	9

Total, 13 princes of Chera, Chola, and Pandava, who reigned 239 years."

This brings the chronology down to the year 537 of the Christian era, to which we must add 500, the probable error. It was, perhaps, this dynasty that erected the palace of *Madura*, which in greatness and elegance is said to exceed all other remaining *Hindu* buildings, and would indeed seem to be an admirable work. The last dynasty of *Madura Rajas*, named *Trimula Nayakas*, were *Polygars*, who on the fall of *Vijaya-nagara* assumed independence.

Belalla Rayarus who governed *Karnata*.

" Belalla Rayar dynasty.

Raja Belalla Rayen ... reigned	18 years.
Vira Belalla Rayen	11
Chenna B. R.	22

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Deva B. R.	... ...	14
Vishnu Verti B. R.	... ...	28
Hurry B. R.	... ...	19
Imudi B. R.	... ...	17
Visia B. R.	... ...	16
Buca B. R.	... .	22
China Buca B. R.	... ...	8

Total, 10 Canudia Belalla Rayar governed 176 years."

The residence of this, and most of the following dynasties, being far removed from *Madras*, little accuracy relative to them is to be expected in this *Raja Paditti*. Our author's chronology brings the end of the *Belalla Rayar* government to the year of the Christian era 712. But *Vishnu Verti* is no doubt the same with *Vishnu Verdana* who, although younger, was contemporary with *Rama Anuja*, born in the year of *Sal*. 939, or 1016 of the Christian era. This confirms the tradition at *Jamagullu*, and *Malayala*, concerning the time of the *Sholun Rajas*, and brings all the other dynasties much lower down than the *Raja Paditti* places them.

Adeva Rajas.

" *Adeva Rajas* government.

Sri Ranga Adeva Rayaru reigned	...	25 years.
Vira Narayana A. R.	... ..	23
Wobala A. R.	... ...	21
Siruvaynguda A. R.	... ...	22
Pirungei Endia A. R.	... ...	15
Canda Gopala A. R.	... ...	32
Narasingha A. R.	... ...	13
Cambuli A. R.	... ...	15
Bucun A. R.	... ...	22
Vira Narasingha A. R.	... ...	12
Narasingha A. R.	... ...	8
Duia A. R. ...	... ...	12
Sri Pandia A. R.	... ...	9
Vasu Deva A. R.	... ...	12
Siric Virindi A. R.	... ...	15
Cutia Deva A. R.	... ...	14
Raja Visia Bujinga A. R.	...	12
Shalica Narayana A. R...	...	10
Pritivadi Bacukera Shadicun A. R ...		87

Total, 19 Adeva Rayas, governing 370 years."

There can be little doubt, but that this dynasty is the same with the 18 ancestors of *Pritapa Rudra*, mentioned in the *Raya Paditti* of *Ramuppa*; in such loose hints as can be procured of *Hindu* history, the difference of one person being of little importance. The immoderate length of the last reign is probably owing to some mistake; and then the coincidence between the two *Ráya Padittis* will be greater; for *Ramuppa* allows only 211 years for these princes. The *Sri Permatura Raya Paditti* brings this dynasty

down to the year of the Christian era 1082; but that must be corrected as above. It then goes on to state, that **1801. July 4.**

" *Uricundy Pritapa Rudrun* governed 58 years, and *Anna Pemma Ruddi* 77 years." *PritapaRudrun.*

It is probable, that *Anna Pemma* may have been a prince descended from *Pritapa Rudra*, who established himself here after the overthrow of that king by the *Mussulmans*, and was not brought under subjection to the first prince of *Vijaya-nagara*; for *Hari-hara* the first is not mentioned in this succession of princes.

" *Tuluva Rayar* government. *Tulava Rayar dynasty.*

Buca Rayar ... reigned	14 years.
Vijia Buca Raya	13
Hari-hara R.	14
Casi Deva R.	8
Rama Deva R.	7
Virupacshi R.	5
Malica Argina R.	7
Rama Chandra Rayar	9
Shalava Conda Deva Maha Raja ...	14
Deva Raya Maha Raja ...	15
Cambudia Deva M. R. ...	5
Comara Cambudia M. R. ...	4
Sholava Canterua Deva M. R. ...	6
Sholava Narasingha Deva M. R. ...	40
Imuda Dharma Rayar ...	11
Piravida Deva Maha Raya ...	30
Rama Chindra M. R. ...	18
Vicunta M. R. ...	19
Padma Nava M. R. ...	6
Damudera M. R.	16
Narasingha M. R.	11
Vira Narasingha M. R.	21

Total, 22 *Tulava Rayas*, governing 293 years."

This brings the chronology down to the year of Christ 1510. The account here given of this dynasty is remarkably different from that of *Ramuppa*, and is totally unsupported by such inscriptions as I have collected. The author then proceeds to the celebrated *Krishna Rayaru*, as of a distinct family.

" *Rayar* government. *Krishna Rayar.*

Krishna Rayar ... governed	20 years.
Achutta Rayar	13
	Total 33.

Rama Raja.

Rama Raja	22
Tirumala Deva Maha Rayar ...	8
Sri Ranka Deva M. R. ...	14
Peria Vencata Puti Maha Rayar...	29
Rama Deva M. R.	15

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Anagundi Vencata M. R.	...	12
Sri Ranga M. R. ...	...	5

Total 7 *Rajas* from *Rama Raja* to *Sri Ranga,* who governed 105 years."

Total from the beginning of the *Kali-yugam* till the year *Veya,* 4748.

Rama Raja is no doubt, the prince who was killed on the banks of the *Krishna,* and whose death was immediately followed by the destruction of *Vijaya nagara;* which, according to this chronology, would have happened in the year of the Christian era 1565. According to *Ramuppa,* however, that event happened about the year 1588; and in this point, I imagine, his chronology is not materially erroneous. The princes that follow *Rama Rayaru* are probably those of a branch of the *Anagundi* family; which, after the fall of *Vijaya-nagara,* settled at *Chandra-giri,* north from *Tripathi,* and which for some time possessed a considerable territory in that vicinity.

Mussulmans. "Afterwards, beginning with the year *Servajittu* (that is, the year following *Veya,* or 1648), were the *Turcanum* (that is to say, the *Mussulmans.*)

The *Golconda Raja,* called *Toluta Abdulla,* reigned 26 years.

Hassun Cudumusta reigned 14 years. Total of the *Golconda* government, 2 reigns and 40 years. Total from the commencement of the *Kali-yugam* 4788 years (*A. D.* 1688).

Afterwards, from the year *Parabara* in the month *Kartika,* were the *Delhi Sultans, Asharbu Padishas.*

Aburung Shai governed 19 years. His sons were *Asumudar, Salem,* and *Cam Bucshi.*

Asumudar governed 3 months.
Salem governed 3 years.
Cambucshi did not govern.
Baba Shean governed 6 years.

The government of 4 kings of *Delhi* continued in all 28 years and 3 months, ending in the year of the *Kali-yugam* 4816 (*A.D.* 1716.)

After this, in the month *Ani* of the year *Munmutta,* came other *Rajas.*

The author's knowledge of the *Mussulman* kings, living at a great distance, has been very imperfect.

July 5. 5th *July.*—I returned to *Condatura,* and on the day following arrived at *Madras;* having observed, ever since passing the *Ghats,* more and more signs of improvement, the nearer I approached this European city.

I was here greatly disappointed at not finding any answers

returned to the queries which I had proposed to the gentleman 1801.
who managed *Bára-mahál* and *Coimbetore* ; as I had depended on July 6.
this assistance, and as their great knowledge and abilities would have enabled me to correct many errors into which I must have fallen, and to obtain much information which a traveller cannot procure.

APPENDIX.

REPORT of the PRODUCTIONS, COMMERCE, and MANUFACTURES, of the SOUTHERN DISTRICTS in *MALLEAM* (*Malayalam*) framed by the Resident at *Calicut*, agreeably to the Instructions of the Commissioners appointed to inspect the Countries ceded by *Tippoo Sultan* on the *Malabar* Coast; and comprized under the following Heads, *viz.*:

1st, ACCOUNT of the several ARTICLES of COMMERCE produced or manufactured, and which are also consumed in the Country.

In calculating the probable profit on the following List of Articles, a deduction must be made for Inland Duties, Customs, and other Charges, which are very considerable, but which cannot be accurately ascertained; for this reason, the difference between their respective local value, and when ready to be sold at, or exported from, the sea-coast, has been put down as the profit arising on the trade. Many of the Articles inserted in this List, are of too trifling a nature to yield any advantages worth mentioning in a commercial point of view.

Natural Productions of the Soil.	Local Value.	Probable Profit arising on the Trade.	Explanatory Remarks.
Betel-Nuts ...	230 reas per 1000	When dried and prepared, 50 per cent.	100 reas = 1 rupee
Black Wood ...	3½ rupees per candy	200 per cent.	
Bamboos ..	2 rupees per 100	50 ditto	
Buzarbut-Nuts, a country-medicine.	18 rupees per candy	25 ditto	
Betel-Nut Leaves ...	1 rupee per 4000	25 ditto	
Butter ...	6 rupees per maund	25 ditto	
Coco-Nuts ...	14 rupees per candy	3 rupees per mill (1000)	Extremely variable in their Prices
Cardamoms, 1st sort	800 rupees per candy	80 per cent.	Little used in the country.—Vide List of Goods exported.
Ditto, 2d ditto	600 ditto ditto	50 ditto	
Ditto, 3d ditto	450 ditto ditto	40 ditto	
Ditto, 4th ditto	300 ditto ditto	20 ditto	
Cassia (Laurus) ...	30 to 40 rupees per candy	50 ditto	Occasionally bought up by the Europe ships; and which, in London, they mix with the real Cinnamon.
Coir, Rope of Co-co-Nut Husks, 2 sorts	18 rupees per ditto	50 ditto	

Natural Productions of the Soil.	Local Value.	Probable Profit arising on the Trade.	Explanatory Remarks.
Capoor Catchree ...	3 rupees per maund	10 per cent.	A country medicine
Colenzum ...	12 rupees per candy	5 ditto	Used in medicine
Cassia Leaves (Laurus)	10 rupees per ditto	25 ditto	
Cultee ...	1¾ rupees per robin	40 ditto	Horse Gram. Dolichos biflorus
Chowla ...	2¼ rupees per ditto	50 ditto	A country grain. Holcus sorghum
Castor Seed ...	1¾ ditto per maund	25 ditto	Ricinus
Dry Ginger ...	35 rupees per candy	50 to 100 ditto	
Eggs ...	1½ rupees per 100	25 ditto	
Honey ...	5 rupees per maund	50 ditto	
Heavy Pepper ...	100 rupees per candy	80 per cent. last year: now 100 per cent.	It is said, that the French at Mahe now give 210 rupees per candy
Jack Wood ...	1½ rupees per candy	100 ditto	Artocarpus
Jeer Kutchla ...	5 ditto ditto	Not to be ascertained	A medicine
Jeer Mai ...	12 rupees per candy	Not to be ascertained	Kind of Nuts used in medicine
Jinjely Seed ...	2½ rupees per robin	50 per cent.	Sesamum
Jacks, Fruit ...	8 per a rupee	Ditto	Artocarpus
Kud Ebramee ...	10 rupees per candy	Not to be ascertained	
Light Pepper ...	100 rupees per candy	100 per cent.	The reason of light Pepper bearing apparently so high a price, is from the vast quantity of it which goes to one candy in weighing it.
Lowlungar Wood ...	1½ rupees per candy	Not to be ascertained	A heavy hard wood, which sinks in the water; occasionally used by Tippoo in launching his ships, to put beneath them when hauled into the water. Hopee Buch. MSS.
Mug (Mung) ...	2 rupees per robin	50 per cent.	Phaseolus mungo. L.
Mangoes, Fruit ...	2 rupees per 100	Not to be ascertained	Mangifera
Nag Kasur, Flower of Cassia	35 rupees per candy	25 per cent.	
Poon Wood for masts ...	5 to 100 rupees per piece	Variable, and not to be ascertained	In great demand for large ships. Calophyllum
Paddy, or Rough Rice	1 rupee per robin	50 per cent.	
Plantains, or Bananas ...	5 rupees per 100	Ditto	Musa
Plantain Leaves ...	1 ditto per ditto	25 ditto	Musa
Sapan Wood ...	10 ditto per candy	60 ditto	Used in dyeing. Guilandina Sapan
Teak Wood (Theca)...	3 rupees per ditto	200 ditto	Vide Remark at the end of this Report
Turmerick ...	25 rupees per candy	50 to 100 per cent.	
Tamarinds ...	10 to 15 rupees per do	50 per cent.	

Natural Productions of the Soil.	Local Value.	Probable Profit arising on the Trade.	Explanatory Remarks.
Toor, a grain ...	1½ rupee per robin	50 per cent.	Produced in small quantities. Cytisus cajan
White Pepper ...	220 rupees per candy	175 ditto	Picked from the heavy pepper; and produced in small quantities.
Jams, a Fruit ...	10 ditto ditto	25 ditto	Calyptranthes Jambulana
MANUFACTURES			
Bees Wax ...	8 rupees per maund	25 per cent.	Produced in small quantities
Baskets ...	30 to 60 per a rupee	5 ditto	
Coco-Nut Oil ...	3 rupees per maund	50 ditto	
Castor-Oil ...	Variable	... ...	Ditto ditto
Coir Ropes ...	25 rupees per candy	25 rupees per cent.	Made of coco-nut husks
Ditto Cables ...	27 ditto	40 ditto	
Copra ...	30 ditto	25 ditto	Dried kernels of the coconut
Chunam (Lime) ...	2 rupees per 1000 noye	10 ditto	
Cadzans ...	5 rupees per 1000	25 ditto	Mats made of the coco leaf
Dammer (Resin) ...	1¾ rupee per maund	10 ditto	
Dry Coco-Nuts ...	47 rupees per 1000	25 ditto	
Gold ...	Variable	Not to be ascertained	Produced in small quantities
Iron ...	Ditto	Ditto	Ditto ditto ditto
Jenjily Oil (Sesamum)	5 rupees per maund	15 per cent.	Ditto ditto ditto
Jagory of Toddy ...	17 rupees per candy	25 ditto	Inspissated juice of Palm Trees
Mats of Bamboos ...	1½ rupee per corge of 20	25 ditto	
Red Betel-Nuts ...	30 rupees per cwt.	25 ditto	
Ditto Chuqueenee do	45 ditto	30 to 50 ditto	
Rice, boiled ...	1¾ rupee per robin	25 ditto	
Small Cumberbands	¼ rupee per piece	Not to be ascertained	The only cloth manufactured in the country.
Summer Heads, or Chitries	Variable	Ditto	Parasols
Toddy ...	¾ rupee per maund	20 per cent.	Juice of Palm Trees
Twine ...	2½ rupees per maund	25 ditto	Produced in small quantities
Toor Dholl, a grain	2 rupees per robin	25 ditto	Ditto ditto ditto. Cytisus cajan
Towker ...	16 rupees per candy	25 ditto	
Wax Candles ...	22 rupees per maund	20 ditto	Ditto ditto ditto
White Betel-Nuts ...	34 rupees per candy	25 ditto	

2dly, ACCOUNT of GOODS EXPORTED, and to what Places.

Natural Productions of the Soil.	Local Value.	Whither exported.	Probable Profit.	Explanatory Remarks.
Betel-Nuts ...	230 reas per 1000	To all places in India	Not to be ascertained	
Black Wood ..	3½ rs. per candy	Ditto	50 per cent.	Pterocarpus
Bamboos ...	2 rupees per 100	Different places along the Coast	Ditto	
Black Gram, a pulse	2½ rupees per robin	Ditto ditto	15 ditto	Very little produced in the country
Buzarbut Nuts ..	18 ditto per candy	To all places in India	20 ditto	A country medicine
Betel-nut Leaves	1 rupee per 4000	To all places along the Coast	2 ditto	
Butter ...	6 rupees per maund	Bought up in small quantities by vessels	10 ditto	
Cardamoms, 1st sort	800 Rs. per cwt	Ditto and Europe	Not to be ascertained	
2d ditto	600 Ditto			
3d ditto	450 Ditto			
4th ditto	300 Ditto			
Cassia (Laurus)	30 to 40 rupees per cwt.	Ditto and ditto	Ditto	Very little produced in the country
Coco-Nuts ...	14 rupees per 1000	To all places in India	5 per cent.	
Coir Coco-nut rope, 2d sort	18 rupees per cwt	To all places in India	Not to be ascertained	
Capoor Cutchree...	3 rupees per maund	Ditto and China	Ditto	Used in medicine
Colenzun ...	12 rupees per candy	Ditto	Ditto	Ditto ditto
Cassia Leaves (Laurus)	10 rupees per candy	Ditto	5 per cent.	
Cultee, a pulse ...	1¾ rupees per robin	Different places along the Coast	Ditto	Horse Gram. Dolichos biflorus
Chowla (Holcus sorghum)	2¼ ditto	Ditto	Ditto	A country grain; very little produced in the country
Castor Seed ...	1¾ rupee per maund	Ditto	Ditto	
Dry Ginger ...	35 rupees per cwt	To all places in India	Not to be ascertained	
Eggs ...	1½ rupee per 100	Bought up in small quantities by vessels	Ditto	
Honey ...	5 rupees per maund	Ditto ditto ditto	Ditto	Very little produced in the country
Heavy Pepper ...	100 rupees per candy	Europe, and all places in India	Ditto	

Natural Productions of the Soil.	Local Value.	Whither exported.	Probable Profit.	Explanatory Remarks.
Jaok-wood ...	1½ rupee per ditto	To all places in India	10 per cent.	Artocarpus
Jeer Kutchala ...	5 ditto	Ditto	Not to be ascertained	Used in medicine
Jeer Moi ...	12 ditto	Ditto	Ditto	
Jenjily Seed (Sesamum)	2½ rupees per robin	Ditto	Ditto	Very little produced in the country
Jacks, Fruit ...	8 per a rupee	Ditto	Ditto	Artocarpus
Kud Ebramee ..	10 rupees per candy	Ditto	Ditto	
Light Pepper ...	100 rupees per cwt	Ditto	50 per cent.	
Limes ...	2½ rupees per 1000	Ditto and Coast	5 ditto	
Lowlungar Wood	1½ rupee per candy	Ditto	10 ditto	
Mug, Phaseolus Mungo	2 rupees per robin	Ditto ditto	5 ditto	Ditto ditto
Mangoes, Fruit ..	2 rupees per 1000	To all places in India and Coast	Not to be ascertained	
Nagkesur, or Flower of Cassia	35 rupees per candy	To all places in India	Ditto	Very little produced in this country
Poon Wood for Masts	5 to 100 rupees per piece	Bombay, and bought up by the Dingys.	Ditto	Calophyllun Inophyllum
Paddy, or Rough Rice	1 rupee per robin	To all places in India and Coast	Ditto	
Plantains, or Bananas	5 rupees per 1000	Ditto	2 per cent.	Musa
Plantain Leaves	8 rupees per ditto	Ditto	Ditto	
Sapan Wood ...	10 rupeespercandy	To all places in India	5 ditto	Used in dyeing Guilandina Sapan
Teak Wood ...	3 ditto	Ditto ditto	25 ditto	Theka Jussieu
Turmeric ...	25 ditto	Ditto ditto	Not to be ascertained	
Toor, Pulse ...	1½ rupee per robin	Ditto ditto	5 per cent.	Very little produced in the country. Cytisus cajan
White Pepper ...	120 rupees per candy	Europe, and to all places in India	Not to be ascertained	Ditto ditto
Jams, Fruit ...	10 rupees ditto	To all places in India and Coast	Ditto	Calyptranthes Jambulana
Sandal wood, 1st, 2d, 3d, and 4th sorts	60 rupees per candy	China, Europe, and places in India	Not to be ascertained	Where the Sandal Wood is produced, it is bought upwithout being picked, or divided into the1st, 2d, 3d, and 4th sorts, which is always done afterwards

Natural Productions of the Soil.	Local Value.	Whither exported.	Probable Profit.	Explanatory Remarks.
MANUFACTURES.				
Bees Wax ...	8 rupees per maund	To all places in India	10 per cent.	
Baskets ...	30 to 60 per a rupee	To all places in the Coast	4 ditto	
Coco-nut Oil ...	3 rupees per maund	To all places in India	Not to be ascertained	
Castor Oil ...	Variable	... ...	Ditto	Very little produced in the country
Coir Ropes of Cocoa-Nut	25 rupees per candy	To all places in India	10 per cent.	
Ditto Cables ...	27 ditto	Ditto	Ditto	
Copra, dried Coco-Nut Kernel	30 ditto	Ditto	Not to be ascertained	
Chunam (Lime)...	2 ditto per 1000 noye	Different places along the Coast	Ditto	
Cadjans, Mats of Coco-NutLeaves	5 ditto per 1000	Ditto ditto	5 per cent.	
Dammer, Resin...	$1\frac{3}{4}$ rupee per maund	To all places in India and ditto	Not to be ascertained	Ditto ditto
Dry Coco-Nut ...	17 rupees per 1000	To all places in India	Ditto	
Gold ...	Variable	... ...	Ditto	Ditto ditto
Iron ...	Ditto	... ...	Ditto	Ditto ditto
Jenjily Oil, Sesamum	5 rupees per maund	Different places along the Coast	5 per cent.	Ditto ditto
Jagree of Toddy...	17 rupees per candy	Ditto ditto	Ditto	Inspissated juice of Palm Trees
Mats of Bamboos	$1\frac{1}{2}$ rupee per corge	Ditto ditto	Not to be ascertained	Corge means 20, or score
Red Betel Nut-...	30 rupees per candy	To all places in India	Ditto	
Ditto Chuqueenee ditto	45 ditto ditto	Ditto	Ditto	
Rice, Boiled ...	$1\frac{3}{4}$ rupee per robin	Ditto and the Coast	Ditto	
Small Cumberbands	$\frac{1}{4}$ rupee per piece	To all places in Coast	5 per cent.	
Summer heads, or Chitries	Variable	Ditto	Not to be ascertained	Parasols
Toddy ...	3 qr. rupee per maund	Ditto	Ditto	Palm Wine
Twine ...	$2\frac{1}{2}$ rupees per maund	Ditto	Ditto	Ditto
Toor Dholl ...	2 rupees per robin	Ditto	Ditto	Grain of the Cytisus cajan
Towker ...	16 rupees per candy	To all places in India	6 per cent.	Malabar Grain
Wax Candles ...	22 rupees per maund	Ditto	5 Ditto	
White Betel-Nut	34 rupees per candy	Ditto	Not to be ascertained	

3dly, ACCOUNT of GOODS IMPORTED.

List of Articles.	From whence imported.	Quality.	Average Price.	Remarks.
Alum ...	China	Dapotas	35 rupees per candy	
Almonds ...	Muscat, Mocha, and Judah	Bags	4 to 6 rupees per maund	
Amber ...	Diree Mahall ditto (Arabia)	Wooden Boxes	3 to 400 rupees per pound	
Aloes ...	Muscat	Bags	6 rupees per pound	
Benjamin ...	Bengal and Achin	Chests	12 to 20 rupees per maund	
Black Grapes ...	Muscat and Mocha	Bags	$4\frac{1}{2}$ rupees per maund	
Brimstone ...	Ditto	Ditto	60 to 90 rupees per candy	
Black Cummin Seed	Ditto, Surat, and Guzerat	Ditto	80 to 100 ditto ditto	
Black Gram, a pulse	Bombay ditto and ditto	Ditto	18 to 35 ditto ditto	
Bole, Medicine	Muscat	Ditto	8 rupees per maund	
Batty, Rice in the Husk	Bombay	...	35 to 45 rupees per morah	
Black Dooties, a cloth	Surat, Guzerat, and Madras	Bale	110 to 130 rupees per corge, or 20 pieces	
Broad Cloth	Bombay	Ditto	45 to 80 rupees per piece	
Camphire ...	China and Achin	Chest	80 to 100 rupees per pecul	
Cotton ...	Bombay, Surat, Guzerat, Rajapore	Bale	80 to 130 rupees per candy	
Cutch Cotton	Cutch	Ditto and Dokras	60 to 90 ditto ditto	
Chilly, Capsicum	Bombay and Goa	Bags	40 to 70 ditto ditto	
Castor Oil ...	Surat and Guzerat	Dupper	60 to 80 ditto ditto	
Chintz ...	Bengal, Madras, Bombay, and Guzerat	Bales	30 to 80 rupees per corge	
Cinnamon	Ceylon and China	Chests	40 to 50 rupees per cwt.	
Coffee ...	Muscat and Mocka	Bags	8 to 10 rupees per maund	
China Root ...	China	Dapotas	45 rupees per candy	
Copper in Sheet, Plate and Bar	Bombay, Bengal, Muscat, and Batavia	Chests	16 to 18 rupees per maund	
Creat ...	Bengal	Ditto	8 rupees per maund	
Cloves ...	Batavia and Malacca	Ditto	3 to 4 rupees per pound	
China Cabob ...	China	Ditto	15 rupees per maund	
Cummin Seed	Bombay, Surat, Guzerat and Muscat	Bags	100 to 150 rupees per candy	
Dholl, a pulse	Bengal, Bombay, Surat, and Guzerat	Ditto	25 to 30 rupees, per cwt.	

List of Articles.	From whence imported.	Quality.	Average Price.	Remarks.
Dry Dates ...	Bussorah, Muscat and Mocha	Ditto	25 to 30 ditto	
Dry Ginger ...	Bengal	Ditto	65 to 75 ditto	
Dammer, Resin...	China, Achin, and Malacca	Chests	50 rupees per cwt.	
Eyes Medicine ...	Muscat and Juddah	Bags	10 rupees per maund	Refined Antimony
Essoop Gool Seed	Ditto ditto	Ditto	50 rupees per cwt.	
Figs, Dry ...	Ditto ditto	Ditto	10 rupees per maund	
Gram, a pulse ...	Bengal, Bombay, Surat, and Guzerat	Ditto	22 to 35 rupees per candy	
Green Paint ...	Surat and Guzerat	Ditto	20 to 35 per maund	
Ghee, Boiled Butter	Bengal, Sind, Surat, and Guzerat	Dupper	6 to 8 rupees per maund	
Gunny Bags ...	Bengal and Bombay	Bale	3 to 4 rupees per corge	Made from the Crotolaria Juncea
Gunny in pots ...	Ditto	Ditto	$2\frac{1}{2}$ to 3 rupees per ditto	
Gum Arabic	Muscat, Surat, and Guzerat	Bags	5 to 8 rupees per maund	
Hartall, Cinnabar	China and Muscat	Ditto	110 rupees per cwt.	
Hing, Asafœtida	Muscat and Sindia	Jar	30 to 50 rupees per maund	
Hengraw ...	Muscat	Ditto	5 rupees per maund	
Iron ...	Bombay	...	65 to 80 rupees per cwt.	
Jenjili Oil ...	Ditto Surat and Guzerat	Dubber	70 to 100 rupees per candy	Sesamum
Jagree ...	Bombay and Rajapore	Earthen Pots and baskets	55 rupees per candy	Inspissated juice of Sugar Cane
Jestomud, Medicine	Bussorah, Muscat, and Mocha	Bags	30 rupees per ditto	Liquorice
Kincob, Cloth	Bombay, Surat, and Guzerat	Bales	20 to 100 rupees per piece	
Kismiss, Raisins	Mocha and Muscat	Bags	4 to 5 rupees per maund	
Long Pepper ...	Bengal	Ditto	30 to 40 ditto ditto	
Lime Pickles ...	Mocha and Muscat	Jar	12 to 15 ditto per 100	
Lead ...	Bombay, Malacca, and Batavia	Cask	4 to 5 rupees per maund	
Mug, Pulse	Ditto, Bengal, Surat, and Guzerat	Bag	18 to 35 rupees per candy	
Mustard ...	Ditto Guzerat and Sindia	Ditto	30 to 40 rupees per ditto	
Mace ...	Batavia, China, and Sindia	Wooden Box	3 to 500 rupees per pound	
Mugadooties, Silks	Bengal	Bales	30 to 40 rupees per corge	
Musroo ...	Bombay, Surat, and Guzerat	Bales	90 to 200 rupees per ditto	
Munzett, Madder	Mocha, Bussorah, and Sindia	Bags	160 rupees per candy	

List of Articles.	From whence imported.	Quality.	Average Price.	Remarks.
Mortooth, or Blue Vitriol	Surat, and Guzerat	Bags	15 to 25 rupees per maund	
Maytee, Fenugreek	Ditto	Ditto	35 to 45 rupees per cwt.	
Medicine ...	Bengal, China, Bombay, Surat, Guzerat and Mocha	Ditto and Chests	Not to be ascertained	
Nutmegs ...	Batavia and China	Wooden Box	10 to 12 rupees per pound	
Nuckla ...	Muscat	Ditto	15 rupees per maund	
Opium ..	Bengal, Bombay, and Mocha	Chests	70 to 180 rupees per maund	
Oil of Mustard Seed	Surat, Guzerat, and Sind	Jars	70 to 90 rupees per candy	
Onions ...	Bombay	Baskets	20 to 50 rupees per ditto	
Purpets, Cloth	Bombay	Bales	16 to 27 rupees per piece	
Piece Goods, Silk and Thread	Bengal, Madras, Bombay, Surat, and Guzerat	Ditto		
Pistachio Nuts ...	Muscat	Bags	6 rupees per maund	
Pepul Mull ...	Bengal	Ditto	22 rupees per maund	Root of the Long Pepper
Pearls ...	Muscat, Bombay, and Surat	Buts		
Pomegranate	Ditto	Baskets	16 to 20 per rupee	
Persia Gul ...	Ditto	Jars	22 rupees per candy	
Persia Salt ...	Ditto	Bags	10 rupees per cwt.	
Quick Silver ...	Bombay, China, and Batavia	Jars	45 to 50 rupees per maund	
Rice ...	Bengal, Mangalore, and Sindia	Bags and robin	7½ to 12 rupees per bag	
Rattans ...	Batavia	Bundles	2½ rupees per 100	
Red Earth ...	Muscat	Bags	15 rupees per candy	
Rose Flowers ...	Ditto	Ditto	4 rupees per maund	
Rose Water ...	Ditto	Bottles	1 rupee per bottle	
Rose Mallos ...	Ditto	Jars	121 rupees per candy	Mallows ?
Red Lead ...	Bombay	Casks	4½ rupees per maund	
Salt ...	Bombay, Muscat, and Mocha	Bags	¾ per bag	
Shark Fins ...	Muscat	Ditto	30 rupees per pecul	
Sweet Limes ...	Ditto	Baskets	15 to 20 per rupee	
Sheep ...	Ditto and Mocha	...	8 to 12 rupees each	
Salem ...	Ditto Ditto	Bags	2 to 4 rupees per pound	
Sunsull Karr ...	Ditto	Ditto	2 rupees per maund	
Sona Makee ...	Ditto	Ditto	3 ditto ditto	
Saw Cummin Seed	Ditto Surat, Guzerat and Sind	Ditto	160 rupees per candy	
Saffron ...	China, Bombay, and Goa	Dupper and Tin Box	20 to 25 rupees per pound	
Shawls ...	Bombay, Surat, and Guzerat	Bale	20 to 100 rupees per piece	

List of Articles.	From whence imported.	Quality.	Average Price.	Remarks.
Steel ...	Bombay	...	90 rupees per candy	
Sugar in Dapotas	China	Dapotas	18 rupees per pecul	
Ditto in Bags	Bengal	Bags	16 ditto	
Ditto in Cannister	Batavia	Cannister	80 rupees per candy	
Sugar Candy ...	China and ditto	Tub and Cannister	120 to 160 rupees per candy	
Salt Petre ..	Bengal	Bag	60 to 70 rupees per candy	
Silk ...	Ditto and China	Bale and Chest	4 to 600 rupees per pecul	
Tobacco ...	Surat, Rajapore, and Coimbetore	Bale	60 to 100 rupees per candy	
Sandal Wood ...	Rajapore and Mangalore	...	10 to 15 ditto	
Tuthnague ...	China and Batavia	...	8 rupees per maund	
Tortoise Shells ...	Batavia	Bale	5 rupees per pound	
Tin ...	Ditto	...	10 rupees per maund	
Vermillion ..	China and Surat	Wooden Box and Bundle	1¼ rupee per bundle	
Wheat ...	Bombay, Surat Guzerat and Muscat	Bag	20 to 35 rupees per candy	
Walnuts	Muscat	Bag	2 to 3 rupees per 100	
Wet Dates	Muscat and Mocha	Ditto	20 rupees per candy	

Teak wood is at present very scarce at Calicut and the sea-ports, owing to the elephants which were employed in this trade being taken away by the *Nabob (Tippoo)* for the use of his army. Before the *Teak* Timber can be brought from the forests, the process is very tedious. It is, in the first instance, necessary to cut off all the branches from the trees intended to be cut down; to cut the tree nearly two-thirds through, and to make long incisions in the bark; in which state it must remain one year to dry, during which time the bark falls off of itself; after which it is cut down, pushed into the rivers contiguous, during the rains, by elephants, and floated down them to different places. The *Teak* wood, when green, is very heavy; and sinks in water.

The *Poon* spars are got in nearly the same manner, but the *Jack* tree can be cut down at any time.

An ABSTRACT of the GOODS IMPORTED and EXPORTED by SEA, for the different Years, taken from the Custom-House Account of *Tellichery* Circle.

Malabar Year 973.		974.	975.
IMPORTS.			
A			
Arrack, Columbo	... 16 leaguers 75 gallons	210 leaguers 10 gallons	75½ leaguers
Ditto Batavia	... 73 ditto	32 ditto 11 ditto	
Ditto, Cochin	... 42 ditto 100 ditto	97 ditto 12 ditto	25 leaguers 43½ gal.
Ditto, Anjengo	... 25 ditto 118 ditto	11 ditto	23 ditto 128 do.
Ditto, Canara	... 2 ditto 43 ditto	3 ditto	
Almonds	... 8 candies 0 maunds 16 lb.	15 candies 18 maunds 20 lb.	2 candies 7 maunds
Aloes	... 3 ditto 1 ditto 13 do.	2 ditto 14 ditto	
Aguam Seed	...100 ditto 17 ditto 16 do.	21 ditto 16 ditto	11 ditto 15 ditto 16 lb.
Asafœtida	... 19 ditto	2 ditto 13 ditto	2 ditto 10 ditto
Alum	... ...	5 ditto 6 ditto 16 lb	6 ditto
B			
Betel-Nuts	... 3 candies 12 maunds 16 lb.	16 candies 1 maund	41 candies 2 maunds
Ditto, Cut	... 13 ditto 16 ditto 16 do.	16 ditto 4 do. 8lb.	7 ditto 6 do. 8 lb.
Ditto, Green	27,900	7000	343,000
Beads	... 20,000	3000	1 candy 18 maunds
Benjoin	... 36¾ peculs = 133 lb.	12 chests	5 ditto 10 ditto
Barley	... 5 kegs and 3 chests	11 kegs	6 kegs
Boots	... 1 trunk	4 trunks	35 pairs
C			
Confectionary	... 1 box	2 boxes	5 boxes
Cutlery	... 2 ditto	11 ditto	6 chests
Coffee	... 2 candies 16 maunds 12 lbs.	1 candy	
Chilly Pepper (Capsicum)	... 16 ditto 13 ditto 16 do.	16 candies 7 maunds 10 lb.	10 candies
Coir, or Coco-Nut Cordage	271 ditto 18 ditto 8 do.	151 ditto 15 ditto	347 ditto
Cointer Seed	...11800 edangallies, 108 cub. in.	8415 edangallies	590 edangallies
Cotton	...247 candies 11 maunds	374 candies	250 candies 18 mds. 16 lb.
Ditto, Yarn	... 3 ditto 13 ditto	1 ditto 2 maunds	15 ditto
Corks	... 5 boxes and 108 gross	1 dozen	50 gross
Cheese	... 8 boxes and 318 lb.	11 boxes	12 boxes
Cummin Seed	... 24 candies 13 maunds 8 lb.	9 candies 10 maunds	21 candies 4 mds. 16 lb.
Coco-Nuts	...191,085	60730	88553

Malabar Year 973.		974.	975.
IMPORTS.			
C			
Copra, or Coco-Nut Kernel	20¼ candies	13 candies	12 candies
Cowry Shells	... 17 ditto 14 maunds 16 lb	15 maunds	4 ditto
Cassia	... 1 ditto 7 ditto 24 do	1¼ candies	3 ditto
Copper Pots	... 49 ditto 14 ditto	18 candies 11 maunds	4 ditto 6 maunds
Castor-Nuts, Ricinus	... 3 duppers or leather bags	12 Duppers	2 ditto 10 ditto
Carpet	... 6 corges, or scores	3 Corges	17 corges, or scores
China Ware	... 16 Chests	18 chests	16 chests and 23 boxes
Cloves	... 1 candy 1 maund 28 lb.	29 chests	5 candies
D			
Dammer, or Resin	... 12 candies		
Dates	... 771 bundles	243 bundles	1440 bundles
Doll, or Pulse	... 58 candies 2 maunds	128 candies 11 mds.	53 candies
E			
Europe Liquors	... 91 dozen	83 dozens	
Ditto ditto	... 42 chests	41 chests	24 chests
Ditto ditto	... 9 boxes	3 boxes	
Ditto ditto	... 12 pipes	14 pipes	20 pipes
Ditto ditto	... 7 casks	9 casks	8 casks
Ditto ditto	... 13 hogsheads	14 hogsheads	
Ditto ditto	... 1 trunk	5 trunks	
Ditto ditto	... 5 cases	18 cases	
F			
Frying Pans	... 150 sets	312 sets	
G			
Ganjaw, or Hemp Leaves	6 candies 17 maunds 16 lb.	8 candies 16 mds.	7 candies 10 mds.
Gram (Pulses) Mung	... 199 ditto 8 ditto 1 do.	748 ditto 17 ditto 24 lb.	279 ditto 10 ditto. 15 lb.
Ditto ditto	... 59 robins	231 robins	206 robins
Ditto, Culty	... 717 ditto	154 ditto	321 ditto
Ditto, Guzerat	... 334 candies 18 maunds 3 lb.	618 candies 11 mds. 30 lb.	187 candies 15 mds.
Ditto, Towra	... ...	6 robins	8 robins
Ditto, Matt	... ...	11¾ candies	
Ghee, or Boiled Butter	89 candies 1 ditto	41 candies 8 maunds	34 candies 13 mds.
Garlick	... 12 ditto	11 ditto 16 ditto	15 ditto 17 ditto
Ginger	... 158 ditto 1 ditto	87 ditto	25 ditto
Gunny Bags, Crotolaria juncea	... ...	12500 bags	2000 bags

Malabar Year 973.		974.	975.
IMPORTS.			
G			
Goat skins	... 102 gallons 10 pints	43 gallons 3 pints	59 gallons 15 pints
Glass Ware	... 35 chests	41 chests	8 chests
Ditto ditto	... 12 trunks	14 trunks	
Ditto ditto	... 2 casks	16 casks	
Ditto ditto	... 1 case		
H			
Hartal Cinnabar	... ...	12 maunds	2 candies 10 mds.
Hemp	... 12 candies 18 maunds	.. ..	6 ditto
Hams	... 1 box	10 boxes	6 boxes
Ditto	... 22 in number	15 in number	
Ditto	... 24 pounds	140 lb.	
Hats	... 1810	700	18 dozen
I			
Jagree Cane, or inspissated juice of Sugar Cane	35 candies 8 maunds	93 candies 18 mds.	95 candies 4 mds.
Iron Nails	... 1 candy	2 ditto	
Ditto	... 128 ditto 11 ditto	.. ..	4 ditto
K			
Kismish Raisins	... 9 candies 13 maunds	18 candies 13 mds. 24 lb.	10 ditto
L			
Liquorice Root	... 20 candies	45 candies 12 mds. 8 lb.	3 ditto 7 ditto
Looking Glasses	... 60 corges, or scores	14 corges	80 dozen
Leather	... 8 ditto	12 ditto	15 corges
M			
Mace	... 7 lb.	8 maunds	15 maunds
Mustard Seed	... 10 candies 16 lbs.	24 candies 12 mds. 8 lb.	15 candies
Mats	... 10 corges, or scores	133 corges	152 corges
Ditto, Bamboo	... 20 ditto	112 ditto	130 ditto
Malabar Medicines	... 17 candies 2 maunds	13 candies	2 candies 10 mds.
N			
Nelly, rough rice	.. 594,642 edangallies, 108 cub. in	865,000 edangallies	26,050 edangallies
Nutmeg	... 2 candies 3 maunds	4 candies 15 mds.	3 candies 5 maunds

Malabar Year 973.		974.	975.
IMPORTS.			
O			
Oil, Coco-Nuts	923½ paddahs	9,049 paddahs	115 paddahs
Opium	1 box	13 baskets	9¾ maunds
Ditto	1 chest	3 chests	
Oil, Castor	15 maunds	19 maunds	
Ditto Gingely, Sesamum	20½ candies	28½ candies	5 candies
Ditto ditto	1½ duppers, leather bag		
Onions	184 candies	215 candies	160 candies
Ollibanum	... ...	24 ditto	26 maunds
P			
Paper	96 reams	129 reams	678 reams
Pickle, Europe	5 boxes	14 boxes	20 boxes
Ditto ditto	3 cases	13 cases	
Ditto, Country	11 candies 10 maunds 16 lbs.	20 cases	30 barrels
Pork, Salt	... ...	15 casks	12 ditto
Perfumery	2 chests	13 chests	15 chests
Ditto	1 box	12 boxes	
Ditto	1 trunk	3 trunks	
Pepper	520 candies 16 maunds	711 candies 6 mds.	849 candies
Planks	1934 guz. or cubits	1,450 guz. or cubits	2,000 pieces
Padlocks	... ...	3 dozen	25 dozen
Piece Goods, Guzerat	16,781 corges 3 pieces	85,800 cgs. 14 pieces	75,400 corges
Ditto ditto Bengal	127 ditto 10 ditto	342 corges 10 pieces	425 ditto 3 pieces
Ditto ditto Palgawt	383 ditto 11 ditto	843 ditto 15 ditto	725 ditto 12 ditto
Ditto ditto Madras	211 ditto 13 ditto	486 ditto 2 ditto	480 ditto 12 ditto
Ditto ditto Manapar	1680 ditto 14 ditto	870 ditto 13 ditto	550 ditto 16 ditto
Ditto ditto Colletchy	231 ditto 4 ditto	420 ditto	325 ditto 13 ditto
Ditto do Palamcotah	793 ditto 15 ditto	384 ditto 15 ditto	733 ditto 10 ditto
Ditto ditto Canara	27,184 ditto	87,385 ditto 4 ditto	75,430 ditto 10 ditto
Ditto ditto China	408 ditto 3 ditto	601 ditto 4 ditto	640 ditto 3 ditto
R			
Rafties, Cotton Cloth	69 pieces	25 pieces	230 pieces
Red Dye	10 candies 16 maunds 16 lbs.	43 candies 18 mds. 16 lb.	
Red Earth	18 kegs	10 kegs	
Rice, Bengal	... ...	42,000 bags	2000 bags
Ditto, Canara	100,323 robins	360,440 robins	72,500 robins $\frac{105000}{42}$ cub. in.
Rose Water	70 bottles	141 bottles	196 bottles
Rice Malabar	9315 robins	85,000 robins	7,300 robins
S			
Sugar	22 chests	121 chests	275 bags
Ditto	200 bags	456 bags	70 chests

Malabar Year 973.		974.	975.
	IMPORTS.		
	S		
Sugar	... 126 candies 16 maunds	421 candies 15 mds.	326 candies
Ditto	... 138 piculs 133 lb.	146 piculs	
Ditto, Candy	... 82½ ditto	935 ditto	825 piculs
Ditto ditto	... 180 tubs	342 tubs	416 tubs
Summerheads (parasols)	... 16 corges 16 pieces	14½ corges	16 corges
Ditto, Silk	... 1 ditto 4 ditto	3¼ ditto	4 ditto 3 pieces
Sweetmeats	... 1695 bundles	486 bundles	1,650 bundles
Sago	... ...	14 small bags	18 bags, small
Salt	... 282,000 edangallies, 108 cub. in.	469,046 edangallies	362,500 edangallies
Ditto	... 3752 bundles	14,000 bundles	
Ditto	... 56¾ candies	83½ candies	107 candies 17 mds.
Shoes	... 8 trunks	10 trunks	5 trunks
Ditto	... 33 corges, or scores	80 corges	90 corges
Stationery	... 3 chests	10 chests	11 chests
Ditto	... 4 boxes	1 box	
Spars	... 20 pieces	61 pieces	52 pieces
Small Shot	... ...	30 bags, small	29 bags, small
Soap	... 82,400 pieces	18,456 pieces	216,700 pieces
Stockings	... 8 dozen	14 dozen	20 dozen
Ditto	... 1 trunk	3 trunks	2 trunks
Ditto	... 3 corges, or scores	1 corge	
Snuff	... 57 lb.	31 lbs.	
Span Wood	... 19¼ candies	15 candies	3 candies
Sandal Wood	... 61 ditto 16 maunds	93 ditto	105 ditto
	T		
Tobacco, Palighat	... 2,210 ditto 8 ditto	1,531 candies 16 ms.	2,342 ditto
Ditto, Guzerat	... 36 ditto 15 ditto	86 candies	43 ditto
Ditto, Canara	... 43 ditto 10 ditto	40 ditto 5 ditto	82 ditto
Tamarinds	... 96 ditto 17 ditto	16 ditto	19 ditto 15 mds.
Turmerick	... 12 ditto 18 ditto	17 ditto	18 ditto 16 ditto
Tea	... 43 boxes	81 boxes	73 boxes
Teeth, Elephant	... 4 maunds	2 maunds	
Twine	... 20 lb.	40 lb.	60 lb.
Timber	... 17 pieces	401 pieces	76 pieces
Tin	... 2 candies	12 candies	8½ candies
	V		
Ulva Seed	... 20 ditto 5 ditto	63 candies 10 mds.	54 candies 15 mds. 24 lb.
Vermillion	... 14 ditto	3 ditto	18 do. 18 do.
	W		
Wheat	... 850 ditto 1 ditto 5 lb.	904 ditto 12 ditto 3 lb.	475 do. 15 do. 18 do.
Wax Candles	... 2 ditto 17 ditto 22 ditto	4 ditto 18 ditto 14 do.	6 do. 17 ditto

Malabar Year 973.		974.	975.
EXPORTS.			
A			
Arrack	... 20 leaguers 75 gallons	18 leaguers 25 gallons	28 leaguers 12 gallons
Assafœtida	... 7 maunds	14 maunds	10 maunds
B			
Betel-Nuts	... 327 candies 12 maunds 16 lb.	385 candies 14 mds. 24 lb.	518 candies 13 mds. 18 lb.
Ditto, Cut	... 39 ditto 9 ditto 8 do	20 do. 13 do. 8 do.	42 do. 10 do. 24 do.
Barley	.. 5 kegs	3 kegs	5 kegs
C			
China Ware	... 10 corges	15 candies	12 boxes
Cotton	... 125 candies	130½ ditto	73 candies 16 mds. 8 lb.
Chilly Pepper (Capsicum)	.. 6 maunds	8 maunds	... 15 do. 18 do.
Cloves	... 14 ditto	12 chests	2 ditto ... 16 do.
Cardamoms	... 6 candies 9 maunds 26 do.	19 candies 2 lb.	25 ditto ... 18 do.
Coco-Nuts, dry	... 721,120 in number	1,786,900	551,000
Do, containing Water.	637,300 in ditto	897,900	305,400
Coprah, Coco-Nut Kernel	... 575 candies 4 maunds 8 lb.	1,450 candies 6 mds.	292 candies 2 mds.
Coir, Coco-Nut Cordage	25 ditto 15 ditto	87 ditto 9 ditto	15 do. 18 do. 17 lb.
Copper	... 17 ditto 18 do.	2 ditto 13 ditto 16 lb.	1 do. 6 do. 15 do.
D			
Dates	... 107 bundles	88 bundles	108 bundles
E			
Europe Liquors	... 85 chests	44 chests	36 chests
Ditto ditto	... 14 hogsheads	11 hogsheads	18 hogsheads
F			
Fish Sounds	... 8 maunds	13 maunds	2 maunds
G			
Gram Moong, Pulse	... 16½ candies	18 candies	12 candies 11 mds. 12 lb.
Ditto, Guzerat, Pulse.	18¾ ditto	46 ditto	12 do. 18 do. ...
Ganjaw, Hemp Leaves.	13 maunds	17 maunds	... 13 do. 18 do.
Garlick	... 5 candies	7 candies	7 do. 12 do. 11 do.
Ghee, Boiled Butter	... 36 ditto	24½ ditto	2 do. 18 do. 19 do.

Malabar year 973.	974.	975.
EXPORTS.		
H		
Hams ... 80 lb.	101 lb.	28 lb.
Hats ... 4 dozen	8 dozen	13 dozen
I		
Iron ... 12 candies	16 candies	10 candies 14 mds. 14 lb.
Jagree, Inspissated Juice of Palm Trees. 26½ ditto	18¾ ditto	8 ditto 12 ditto
K		
Kismish Raisins ... 13 maunds	18 maunds	19 maunds 21 lb.
L		
Liquorice Root ... 3 candies	11 maunds	12 maunds 28 lb.
M		
Mace ... 12 lb.	8 lb.	1 maund 18 lb.
N		
Nutmegs ... 6 lb.	18 lb.	8 lb.
Nelly, or Rough Rice.. 26,070 edangallies	46,300 edangallies	56,500 edangallies
O		
Oil, Coco-Nut ... 18 paddahs	3 paddahs	12 paddahs
P		
Pepper ... 5221 candies 17 mds. 16 lb.	2,306 candies 7 mds. 8 lb.	1,650 candies 10 mds. 28 lb.
Ditto, Light	85 ditto 15 ditto	57 do. 9 do. 8 do.
Perfumery ... 4 chests	2 chests	3 boxes
Piece Goods ... 270 corges	107 corges	267¾ corges
R		
Rice ... 18,670 robins	3,786 robins	8,007 robins
S		
Sugar ... 25¾ candies	63 candies 14 mds. 18 lb.	24 candies 10 mds. 10 lb.

C

Malabar Year 973.		974.	975.
	EXPORTS.		
	S		
Ditto, Candy	... 24 tubs	18 tubs	17 tubs
Sandal Wood	... 567 candies 5 maunds	548 corges 2 mds. 18 lb.	1,056 candies 11 mds. 27 lb.
Ditto, Sawings	... 52 ditto 14 ditto	143 do. ... 15 do.	4 ditto ...
Sharkfins	... 6 ditto 1 ditto 16 do.	7 do. 14 do. 16 do.	11 do. 2 do. 16 do
Spars	... 11 score 12 pieces	1 score 9 pieces	16 pieces
Span Wood	... 4 maunds	16 maunds	18 maunds
	T		
Tobacco	... 76 candies 18 maunds	86 candies 11 mds. 13 lb.	93 candies 13 mds. 10 lb.
Tea	... 8 chests	13 boxes	10 chests
Timber	... 632 candies 5 maunds 3 lb.	200 candies 18 mds. 16 lb.	130 candies 16 mds. 13 lb.
	V		
Ulva Seed	... 3 candies	8 candies	11 do. 16 do. 8 do
	W		
Wheat	... 73 candies 16 maunds 16 lb.	73 candies 18 mds. 18 lb.	16 do. 13 do. 18 do.

TOTAL QUANTITY of different ARTICLES EXPORTED by SEA from *BETTUTANADA*, in the Years 974 and 975.

Articles.	Quantity in 974.	Quantity in 975.
Betle-Nut ...	170 candies 4 tulam ..	157 candies and ¼ tulam
Brass ...	14 ditto ...	— 4 ditto
Cassia ...	16½ ditto ...	1 candy 4 ditto
Chappungam Wood (Sapan) ..	130 Ditto 16 ditto ...	147 ditto
Chinakai, a Fruit ...	21 Ditto 4½ ditto ...	17 ditto 17 ditto
Chilly ...	1 Ditto 13 ditto ...	— 16½ ditto
Clay, White ...	None ...	1½ tulam
Coolty, a Grain ...	370 morahs, or robins ...	527 morahs, or robins
Coco-Nuts, Dry ...	32,34265 ...	2731520
Ditto, Green ...	10,06590 ...	2,20070
Coir, or Coco-Nut Cordage ...	25 candies 8 tulam ...	14 tulam
Coriander Seed ...	None ...	50 edungarry (edangallies)
Cotton ...	7½ tulam ...	13¼ Ditto
Ditto, Yarn ...	None ...	6 Ditto
Dates, Dry ...	1 candy 2½ tulam ...	2 candies 9½ tulam
Ditto, Wet ...	None ...	16 tulam
Fish, Salt ..	182½ ox loads and 292 bales.	366 bales

Articles.	Quantity in 974.	Quantity in 975.
Gingely, Sesamum	819 morahs, or robins	1155 Ditto
Ginger, Wet	2 tulam	9 tulam
Ditto, Dry	63 candies 19½ tulam	86 candies 16 tulam
Garlic	2 Ditto 7¾ ditto	16½ tulam
Ghee	None	1 Ditto
Gunja, Dried Leaves of Cannabis sativa	50 bales	None
Kemp, Crotolaria juncea	11 candies 14 tulam	6 candies 2 tulam
Iron	90 Ditto 10 ditto	90 candies
Ditto Ware	None	654 pieces
Jagory, or Inspissated Juice of Brab Tree	3 tulam	None
Kastury	50 candies 18 tulam	63 candies 12 tulam
Kopra, dried Coco-Nut Kernels	19 Ditto 5 ditto	29 Ditto 11 ditto
Kolakai	12 Ditto 16 ditto	26 Ditto 6 ditto
Kuwa Flower	4 Ditto 8 ditto	7 Ditto 1 ditto
Ditto Root	None	78 Ditto 6 ditto
Medicine, Weppumtoly	10 tulam	None
Ditto, Ramacham	None	½ tulam
Ditto, Woralary	16½ tulam	150 edungarry (edangallies)
Ditto, Kuwahottamura	None	3 tulam
Ditto, Katumarana	16½ tulam	None
Ditto, Karingaly	None	1 candy 6 tulam
Ditto, Konepuwa	25 edungarry (edangallies)	None
Ditto, Nerengilla	None	1 tulam
Ditto, Wengakathil	2 tulam	None
Ditto, Kurkolari	None	62½ edungarry (edangallies)
Ditto, Takaram	10 tulam	None
Ditto, Waimba	None	2 candies 1¼ tulam
Ditto, Stink Wood	1 tulam	None
Ditto, Pachotytoly	2 Ditto	None
Moong, Pulse, Phaseolus Mungo	29 morah, or robin	224 morahs, or robins
Mats, Grass	None	50
Nellikai, Phyllanthus Emblica	3625 edungarry (edangallies)	270 edungarry (edangallies)
Oil, Coco Nut	None	30 pots
Oil, Gingly, Sesamum	54¾ Chothana, or Pots	None
Ola, Writing Palm Leaves	None	1000
Onions	8 tulam	4 tulam
Paddy, or Rough Rice	43,840 parahs	4600 parah
Pepper, Black	120 candies 19 tulam	214 candies 19½ tulam
Ditto, Long	None	15 tulam
Rice	665 morah (robins)	57 morah (robins)
Resin	None	1½ tulam
Salt, Coarse	45,80½ parah	4681½ parah
Ditto, White	2 tulam	None
Ditto, Pappara	3 candies 3 tulam	1 candy 8 tulam
Sandal Wood	10 Ditto 2 ditto	3 Ditto 16¾ ditto
Sugar, Moist	1 tulam	2 tulam
Sheep Skins	None	4½
Tamarinds	4 candies 10 tulam	10 tulam
Tobacco	100 bundles, small	190 bundles, small.
Tonies, Canoes	None	9 new ones
Turmerick	28 candies 10¼ tulam	10¾ candies, 4 tulam
Wax	23¼ tulam	¼ tulam

TOTAL QUANTITY of different ARTICLES IMPORTED by SEA, in *BETTUTANADA*, in the Years 974 and 975.

Articles.	Quantity in 974.	Quantity in 975.
Betel-Nut ...	37 candies 15½ tulam ..	None
Cloth, Mannapar ..	117½ corge, or score pieces...	100 corge
Cedar ...	None ...	1¼ tulam
Ditto, Kolichy ...	24½ Ditto ...	25 corge
Ditto, Kotarum ...	None ...	12½ Ditto
Ditto, Kangy ...	2 pieces ...	None
Fish, Salt ...	138 bales ...	None
Salt ...	590 parah ...	2000 parah
Sublimate (of Mercury) ...	6 tulam ...	None

(Signed) J. W. Wye, Collector.

TOTAL QUANTITY of ARTICLES EXPORTED by SEA, from *PARUPA-NADA*, in the Years 974 and 975.

Articles.	Quantity in 974.	Quantity in 975.
Betel-Nut ...	9 candies 9 tulam ...	9 candies 3 tulam
Cassia Laurus ...	3 tulam ...	None
Chuppungom Wood (Sapan) ...	15 candies 2½ tulam ...	16 candies 10 tulam
Chinakai ...	15 tulam ...	15 tulam
Coco-Nuts, Dry ...	1,081,540 in number ...	832800
Ditto, Green ...	None ...	134650
Coir ...	62 candies 12 tulam ...	52 candies 5 tulam
Coriander Seed ...	200 edungarry (edangallies)..	None
Coolty, Pulse, Dolichos biflorus ...	45 morah (robins) ...	25 morah (robins)
Fish, Salt ...	2 bales ...	None
Garlick ...	1 tulam ...	None
Ginger, Wet ...	17 Ditto ...	13 tulam
Ditto Dry ...	43 candies 13 tulam ...	38 candies 4¼ tulam
Gingely Seed (Sesamum) ..	326 bales ...	423 bales
Hemp, Crotolaria juncea ...	18 candies 18 tulam ...	None
Iron ...	10 Ditto 13 ditto ...	27 candies 19 tulam
Kastury, a kind of Turmerick ...	10 candies 16 tulam ...	17 candies 14 tulam
Kolakat ...	1 Ditto 16 ditto ...	7 Ditto 6 ditto
Kopra, Dried Coco-Nut Kernel ...	4 Ditto 5 ditto ...	21 Ditto 9 ditto
Kuwa Root ...	16 tulam ...	None
Ditto, Flower ...	7 candies ...	7 candies 12 tulam
Moong, a Pulse, Phaseolus Mungo.	None ...	2 morah (robins)
Medicine, Weralary ...	2 tulam ...	1 tulam
Ditto, Neringila ...	None ...	¼ Ditto
Ditto, Waimbu, Acorus aromaticus	2 tulam ...	
Ditto, Karinguly ...	None ...	¼ tulam
Nellikai, Philanthus Emblica ...	3050 edunga (errydangallies)	900 edungarry (edangallies)

Articles.	Quantity in 974.	Quantity in 975.
Oil, Gingely (Sesamum) ...	8 pots ...	None
Paddy, Rough Rice ...	1400 parah ...	Ditto
Pepper, Black ...	41 candies 18 tulam ...	21 candies 4½ tulam
Rice ...	None ..	25 morahs (robins)
Sandal Wood ...	2 candies ...	14 candies 5 tulam
Salt ...	34,300 parahs ...	7350 parahs
Shells for Chunam (Lime) ...	None ...	600 narai
Tobacco ...	10 tulam ...	None
Turmerick ...	4 candies 11 tulam ...	11 candies 15½ tulam
Tonies (Canoes) New ...	None ...	14
Twine, Hempen, i. e. of the Crotolaria juncea ...	Ditto ...	2 candies 10 tulam

TOTAL QUANTITY of ARTICLES IMPORTED by SEA in *PARUPA-NADA*, for the Years 974 and 975.

Articles.	Quantity in 974.	Quantity in 975.
Betel-Nut ...	27 candies 6 tulam ...	None
Cloth, Mannapar ...	15¾ corges, or scores of pieces	127½ corges
Ditto, Kolichy ...	3 Ditto ...	None
Cotton ...	5 candies ...	Ditto
Dates, Dry ...	5 Ditto 4 tulam ...	Ditto
Resin ...	8 tulam ...	Ditto
Rice ..	None ...	750 morahs (robins)
Sugar, Moist ...	10 tulam ...	None

(Signed) J. W. Wye, Collector.

TOTAL QUANTITY of ARTICLES EXPORTED by LAND from *MANARGHAT*, in the Years 974 and 975, commencing 14th September 1798 and 1799.

Articles.	Quantity in 974.	Quantity in 975.
Betel-Nut, Areca ...	729⅛ tulam 2¼ polam ...	1042¼ tulam 5 polam
Ditto Leaf, Piper Betle ..	None ...	6760 small bales
Cassia Laurus ...	10½ tulam ...	26½ tulam
Cardamoms ...	¾ Ditto ...	4 Ditto
Cedar ...	None ...	½ Ditto
Chappungum Wood (Sapan) ...	19 tulam ...	20½ Ditto
Chinakai ...	4 tulam ...	None
Coco-Nuts ...	70 ...	7663
Coir, Coco-Nut Cordage ...	None ...	1¼ tulam
Fish, Salt ...	None ...	98 bales
Dubbers, New, Leather Bags ...	None ...	30

Articles.	Quantity in 974,	Quantity in 975.
Dates, Wet ...	None ...	15 tulam
Ginger, Dry ...	347 tulam ...	255½ Ditto
Hing, Asafœtida ...	¼ tulam ...	None
Hides ...	2 ...	
Honey ...	None ...	13 pots
Jagory, of the Brab Tree ...	1¾ tulam ...	19½ tulam
Jagory, of Sugar Cane ...	None ...	2 Ditto
Kastury, a Turmerick ...	None ...	28 Ditto
Medicine, Weralury ...	2 tulam ...	
Ditto, Nagapuwa ...	½ Ditto ...	
Oil Wood ...	None ...	25⅛ pots
Oil, Coco-Nut ...	20¾ pots ...	30½ Ditto
Oil, Gingly (Sesamum) ...	None ...	26 Ditto
Pepper, Black ...	281¾ tulam 11 polam ...	279 tulam 8½ polam
Pepper, Long, Root of ...	9½ tulam ..	5 tulam
Puwatta, a Red Dry ...	5¼ Ditto ...	None
Ragy, a Grain ...	28 parahs ...	None
Resin ...	3 tulam ...	None
Rice ...	51½ parahs ...	405½ parah
Sandal Wood ...	93¾ tulam ...	2½ tulam
Salt ...	None ...	1 Ditto
Ditto ...	870½ parahs ...	1222 parah
Shells for Chunam (Lime) ...	None ...	21¼ parah
Sugar, Moist ...	None ...	1¼ tulam
Turmerick ...	418⅛ tulam 7½ palom ...	54⅜ Ditto
Wax ...	75⅝ Ditto 7½ ditto ...	2⅞ Ditto

TOTAL QUANTITY of ARTICLES IMPORTED by LAND to *MANAR-GHAT*, in the Years 974 and 975.

Articles.	Quantity in 974.	Quantity in 975.
Buffalo, Female ...	27 ..	10
Ditto, Male ...	1 ...	106
Cardamums ...	11½ tulam ...	5½ tulam
Chappungom Wood (Sapan) ...	3½ Ditto ...	None
Cloth, Coimbetore ...	5269¼ pieces ...	3514½ pieces
Chilly, or Capsicum ...	227 parah ...	118½ parah
Castor Oil Seed ...	41¼ Ditto ...	44 Ditto
Chinakai ...	3 tulam ...	None
Cotton Yarn ..	205½ Ditto ...	364½ tulam
Cummin Seed ...	4¼ Ditto ...	10¼ Ditto
Coolly, a Pulse ...	29 parah ...	43 parahs
Coriander Seed ...	33½ Ditto ...	36 Ditto
Dill Seed ...	446 Ditto ...	157¾ Ditto
Dholl, Split Pease, of the Cytisus Cajan ...	536¼ Ditto ...	17¾ Ditto
Ditto, Whole ...	None ...	421¾ Ditto
Garlick ...	2745¾ tulam ...	2197¾ tulam
Gunja, or Hemp Leaves ...	8394 bales, small ...	3536 bales, small
Gram, Pulse ...	119 parahs ...	331 parahs

Articles.	Quantity in 974.	Quantity in 975.
Ginger, Wet ...	6 tulam ...	None
Ghee, or Boiled Butter ...	674¾ pots ...	1762¼ pots
Hemp, Crotolaria ...	3 polam ...	None
Honey ...	None ...	25½ pots
Jagory ...	21 tulam ...	105¾ tulam
Kadukai ...	23 Ditto ...	12 Ditto
Lac ...	¼ Ditto ...	None
Medicine, Waimber ...	5 Ditto ...	501 tulam
Ditto, Neringilla ...	None ...	1 Ditto
Ditto, Weralary ...	4 tulam ...	4½ parah
Moong, Pulse ...	5¼ parahs ...	30 Ditto
Mustard Seed ...	1873 Ditto ...	1401½ Ditto
Onions ...	130 tulam ...	45¼ tulam
Oil of Weppu ...	None ..	1 pot
Ditto, Coco-Nut ...	None ...	4 pots
Pepper ...	70¾ tulam 10 polam ...	
Poppy Seed ...	15½ parah ...	None
Resin ...	15 tulam ...	None
Sheep ...	111 ...	182
Sandal Wood ...	18¼ tulam ...	36½ tulam
Tamarinds ...	128¾ Ditto ...	32¼ Ditto
Tobacco ...	176966 bales, small ...	189742 bales, small
Ureed, Pulse ...	80½ parahs ...	279 parahs
Wax ...	None ...	73 tulam

(Signed) J. W. Wye, Collector.

An ACCOUNT of the GOODS EXPORTED and IMPORTED by the *TAMARA CHERY GHAT*, for the *Malabar* Year 975.

EXPORTS.	Quantity.	IMPORTS.	Quantity.
Water Coco-Nuts ...	19000	Bages of Rice ...	115 value, from 3 to 4 rupees each
Dry Soopareys or Betel-Nuts	47 tulam	Ditto Nelly, or Rough Rice	268 value from 2 to 3 rupees each
Coco-Nut Oil ...	57 ditto	Country Lac ...	9¼ tulam
Silk ...	12 pieces	Bees Wax ...	10¼ ditto
Dungaree Cloth, coarse Cotton Cloth ...	8 corges or scores of pieces	Ghee, or boiled Butter ...	13¼ ditto
Moonds, or Waist Cloths ...	13 ditto	Tobacco ...	3¼ ditto
Soap ...	600 pieces	Gunjar (Hemp Leaves) ...	22¾ ditto
Sugar ...	3 maunds	Bullocks, Oxen ...	94
Chapungam Wood, Sapan...	30 ditto	Country Blankets ...	4 corges
Blankets, Country ...	10	Jagory ...	3 tulam
Salt ...	343 bags	Dholl, Pulse ...	3 bags
Jagory ...	1230 bundles, 10 pieces in each	Red Chilley, Capsicum ...	56 tulam
Salt Fish ...	7400	Red Onions ...	40 ditto
Ditto, small ...	59 bags	White ditto ...	12 ditto
Cochin Arrack ...	10 gallons	Bapennah (Castor Oil) ...	18
Country ditto ...	167 pots	Euenah (a small grain) ...	140 dungallys (edangallies)
Dates ...	10 tulam		

(Signed) R. Coward, Collector.

An ACCOUNT of the EXPORTS and IMPORTS of the various ARTICLES into the *PYE-NADA* DISTRICT, for the *Malabar* Year 975.

EXPORTS.	Quantity.	IMPORTS.	Quantity.
Water Coco-Nuts ...	315700	Rice, Moodahs (robins)= 108000 cubical inches ...	3292 moodahs (robins)
Dry ditto ...	463000	Pyroo, a Pulse ...	39 ditto
Soopareys (dry) Betel-Nut..	443¼ candies	Red Soopareys, or Betel-Nut	136700
Coco-Nut Oil ...	48¾ ditto	Dates ...	5½ candies
Pepper ...	56 ditto	Red Onions ...	1½ tulam
Coprah, White, Coco-Nut Kernels ...	66 ditto	Manapar Cloth ...	10 corges, or scores of pieces
Ditto, Black ...	10½ ditto	Salt ...	13000 dungallys (edangallies)
Manueil ...	2 ditto	Oringna ...	140 moodahs (robins)
Ditto Chuckoor ...	4 maunds		
Karookar ...	1¼ candy		
Ghee, or boiled Butter ...	2 maunds		
Ginjaly, Oil of Sesamum ...	2¼ ditto		
Coir, Coco-Nut Cordage ...	59 candies		
Mats, Bamboo ...	31600		
Iron ...	1½ candy		
Chapingar, Sapan Wood ...	1 ditto		

(Signed) R. COWARD, Collector.

ABSTRACT of GOODS IMPORTED by SEA, from 1st January to 31st December, 1799.

Quality.	Quantity.	Quality.	Quantity.
		Bamboos ...	13,800
A		Boots ...	4 trunks
		Beef ...	4 casks
Almonds ...	12 bundles	Ditto ...	4 kegs
Arrack ...	485 canadas	Bellows, Smiths ...	2
Ditto ...	96¼ leaguers	Bagery, Grain of the Holcus Spicatus ...	7 candies
Ditto ...	31 casks	Ditto ...	5 capats
Ditto ...	15 kegs	Ditto ...	2 maunds
Ditto ...	17½ cases	Ditto ...	8 bags
Ditto ...	5 jars	Blue Cloth ...	49 corges, or scores of pieces
Ditto ...	21 pipes	Ditto ...	5 pieces
Ajuan Seed, an umbelliferous Plant ...	10½ candies	Ditto ...	2 bales
Ditto ...	20 maunds	Ditto ...	1 bundles
Ditto ...	52 bags	Bamboo Mats ...	208 corges
Ditto ...	12 capats	Books ...	46
B		Ditto ...	1 chest
		Beer ...	2 chests
Bengal Rice ...	59 bags	Ditto ...	12 dozen
Betel-Nut ...	2 maunds	Blankets ...	10 pieces
Ditto ...	74,000	Ditto ...	3 corges, or scores
Ditto ...	2 bags	Brandy ..	4 chests
Ditto ...	300 bundles	Ditto ...	8 kegs

Quality.	Quantity.
Brandy ...	14 dozens
Ditto ...	2 casks
Ditto ...	29 cases
Bottles of Ale ...	1 ditto
Ditto ditto ...	1 hogshead
Barley ...	2 casks
Ditto ...	1 keg
Ditto ..	2 chests
Brooms ...	100
C	
Columba Arrack ...	16½ leaguers
Ditto ...	5 casks
Ditto ...	4 kegs
Ditto ...	7 pipes
Ditto ...	15000 bottles
Cochin Arrack ...	4 leaguers
Ditto ...	4 pipes
Ditto ...	2 casks
Ditto ...	92 bottles
Country Arrack ...	4 leaguers
Ditto ...	110 pipes
Ditto ...	392 canadas
China Ware ...	2 baskets
Ditto ...	8 chests
Ditto ...	767
Country Boots ...	5 pairs
Coco-Nuts ...	104660
Copper Pots ...	37 bags
Ditto ...	90 maunds
Coiner Seed ...	6615 edangallies
Ditto ...	15 candies
Ditto ...	9 maunds
Ditto ...	5 cappats
Ditto ...	4 bags
Corks ..	6 ditto
Ditto ...	76 gross
Ditto ...	1000
Ditto ...	1 chest
Coffee ...	20 bags
Ditto ..	1 bundle
Ditto ...	26 maunds
Cummin Seed ...	23 bags
Ditto ...	40 maunds
Claret ...	3 chests
Ditto ..	45 dozens
Cotton Lace ...	24 bundles
Ditto ...	40 pieces
Cruet Stands ...	2
Cloves ...	2 maunds
Ditto ...	1
Culty Gram, a kind of Pulse	15 maunds
Ditto ..	18 robins
Chilly Pepper, Capsicum...	23¾ candies
Ditto ..	62½ maunds
Ditto ...	4 bags
Candles ...	2 bales
Ditto ..	35 maunds
Ditto ..	850 lbs.
Canvas ...	26 bolts
Coir, Coco-Nut Cordage ...	19¼ candies
Ditto ...	10¾ maunds
Ditto ...	
Cotton ...	6 candies
Ditto ...	12 maunds
Ditto ...	22 bales
Cherry Brandy ...	1 box
Ditto ...	2 dozen
Cheese ...	5 boxes
Ditto ...	2 chests
Cards and Pomatum ...	1 box
Coco-Nut Oil ...	48 chodanas
Ditto ditto ...	8 jars
Ditto ditto ...	660 paddoms
Ditto ditto ...	1155 pots
Ditto ditto ...	172 candies
Ditto ditto ...	81 dubers, or leathern bags
Ditto ditto ...	11 cutys
Country Mats ..	186 corge, or score
China Mats ...	122 pieces
Common Cups ...	4 chests
Combs ...	10 corges, or scores
Cutlery ...	4 chests
Ditto ...	1 bundle
Chintz ...	5 corges, or score
Country Beans ...	15 robins
Chandrose ...	5 bundles
Combla Mas ...	12¾ ditto
D	
Dholl, a kind of Pulse ...	19 candies
Ditto ...	10 maunds
Ditto ...	5 edangallies
Ditto ...	64 bags
Dates ...	73 cappats
Ditto ...	2⅓ maunds
Ditto ..	8 bags
Dorca, a kind of Muslin ...	14 pieces
Dungary, Cotton Cloth ...	67½ corge, or score
Ditto ...	4 bundles
E	
Europe Cloth ...	1 trunk
Ditto ...	1 chest
Empty Bags ...	3200

Quality.	Quantity.
F	
Flannel ...	1 bag
Ditto ..	4 pieces
Frying Pans ...	23 sets
G	
Gram, a kind of Pulse ..	82 candies
Ditto ...	132 cappats
Ditto ...	96 bags
Ditto ...	20 bales
Ghee, or Boiled Butter ..	109 duppers, leather bags
Ditto ...	31½ maunds
Gingelly Oil or Sesamum..	11 duppers
Gun Powder ...	1 bag
Ditto ...	1 barrel
Glass Ware ..	12 dozen
Ditto ditto ...	10 chests
Ditto ditto ...	2 boxes
Gin ...	244 cases
Ditto ...	5 chests
Ditto ...	1 leaguer
Garlick ...	18 bags
Ditto ...	4 baskets
Ditto ...	7¼ candies
Ditto ...	4 cappats
Ginger ...	1 candy
Ditto ...	25¾ maunds
Ditto ...	2 bundles
Ganjah, or dry flowers and Leaves of Hemp ...	75 ditto
Ditto ...	10 maunds
H	
Handkerchiefs ...	5 corges, or score
Hams ...	2 boxes
Ditto ...	27 chests
Ditto ...	2 cases
Hira Cassy, a Dye ...	5 maunds
Hemp, that is of Crotolaria juncea ...	60 ditto
Ditto ...	37 lbs.
Hats ...	6 chests
Ditto ...	1 box
Ditto ...	1 trunk
Ditto ...	183
Hooka Snakes ...	1 chest
Hock ...	3½ dozen
I	
Iron ...	30 bars
Iron ...	289 pieces
Ditto ...	4 maunds
Ink Powder ...	10 bundles
Ditto ditto ...	3 dozen
Jagory ...	38¼ candies
Ditto ...	118¼ maunds
Ditto ...	87 pots
Ditto ...	4 duppers, or leather bags
Ditto ...	6 bags
Ditto ...	10 bales
K	
Kismiss, or small Raisins.	62 maunds
Ditto ...	1 bag
Kascas, Poppy Seed ...	3 ditto
L	
Looking Glasses ...	1 dozen
Ditto ...	14½ corge, or score
Ditto ...	2 bundles
Linseed Oil ...	4 lbs.
Lamps ...	3 chests
Lemon Juice ...	24 bottles
Lutestring ...	1 piece
Ditto ...	3 chests
Long Drawers ...	11¾ corges, or score
Leather ...	16¾ ditto
Lisbon Wine ...	2 quarter casks
M	
Madeira Wine ..	12 casks
Ditto ...	4 boxes
Ditto ...	39 chests
Ditto ...	4½ pipes
Ditto ...	160 dozen
Malmsey Wine ...	8 chests
Ditto ...	3 boxes
Medicine, Europe ...	1 dozen
Ditto, ditto ..	2½ boxes
Ditto, Malabar ..	5½ maunds
Manapar Onions ...	4 bundles
Mowrah ...	1½ pipe
Ditto ...	2 leaguers
Mustard ...	2 dozen
Ditto ...	8 bags
Ditto ...	40 robins
Mung, a kind of Pulse ...	25 ditto
Ditto ...	2 bags
Ditto ...	2 cappats
Ditto ...	4 candies

Quality.	Quantity.
Methy Seed, Fenugreek ...	1 candy
Ditto ditto ...	7 bags
N	
Nelly, or Rice in the Husk	254,000 edangallies
Ditto ...	9330 parahs
Ditto ...	22 robins
Ditto ...	331 bags
NellikaPhyllanthusEmblica	1185 edangallies
Nutmegs ...	1 bundle
Ditto ...	67 lb.
Nackeny, the grain of the Cynosurus Corocanus ...	165 robins
Needles and Pins ...	24 papers
Nankins ...	5 chests
Ditto ...	111½ corges, or score
Nails ...	1 cask
Ditto ...	1 maund
O	
Opium ...	3 bundles
Ditto ...	11¼ maunds
Ditto ...	55 Seers
Ditto ...	
Onions ...	4 bags
Ditto ..	204 candies
Ditto ...	5 maunds
Ditto ...	20 cappats
P	
Port Wine ...	6 quarter casks
Paper ...	198¼ ream
Ditto ...	9 chests
Ditto ...	200 sheets
Pomatum ...	2 cases
Pepperment ...	3½ dozen
Pickles ...	38 boxes
Ditto ...	1 chest
Ditto ...	4 cases
Ditto ...	6 maunds
Piece Goods ...	3 chests
Ditto ...	4 boxes
Ditto ...	2390 corges, or score
Ditto ...	44 bundles
Ditto ...	283 ditto
Ditto ...	11,823 pieces
Ditto ...	8 bags
Powder Horns ...	1½ dozen
Purpet Cloth ...	20 pieces
Pepper ...	4½ candies
Pen Knives ...	1¼ dozen
Paint of Sorts ...	7 kegs

Quality.	Quantity.
Paint of Sorts ...	½ maund
Perfumery ...	36 chests
Ditto ...	5 boxes
Pale Ale ...	2 casks
Ditto	2 kegs
Ditto ...	2 chests
Paint Brushes ...	2 dozen
R	
Rum ...	2 chests
Ditto ...	20 cases
Rice ..	6934 robins
Ditto ...	422 bags
Ditto ...	20000 edangallies
Ditto ...	350 bundles
Ditto ...	375 padys
Rose Water ...	37 bottles
Razors ..	2 dozen
Rosin ...	1½ candy
Ditto ...	8 cappats
S	
Soap ...	6 bolts
Ditto ...	3442 pieces
Ditto ...	143½ maunds
Ditto ...	100 bags
Ditto ...	2½ corges, or score
Sundry Articles ...	3 chests
Sago ...	1
Shoes ...	89 corges, or score
Ditto ...	14 pieces
Ditto ..	2 chests
Ditto ...	1 dozen
Ditto ...	1 box
Salt ...	4 candies
Ditto ...	16 maunds
Ditto ...	34 cappats
Ditto ...	3000 edangallies
Sugar ...	9 candies
Ditto ...	35 maunds
Ditto ...	37 baskets
Ditto ...	210 bags
Ditto ...	177 tubs
Small Cups ...	4 baskets
Ditto Jars ...	25
Sindy Salt ...	29 cappats
Saucers ...	2 dozen
Shot ...	20 bags
Ditto ...	2 kegs
Sadlery ...	1 trunk
Ditto ...	3 chests
Saddle ..	1
Sersekar ...	1 piece

Quality.	Quantity.	Quality.	Quantity.
Shawls ...	55 pieces	Tamarinds ...	55 bags
Shirts ...	19¾ corges, or score	Tape ...	14 bundles
Ditto ...	211 pieces	Twine ...	39 maunds
Sinamon (Cinnamon) ...	5½ maunds	Ditto ...	2 bags
Spying Glasses ...	4	Ditto ...	1 bundle
Scissars ...	2 dozen	Tooth Pick Cases ...	3 dozen
Sweet Oil ...	1 ditto	Trowsers ...	5 ditto
		Tin Ware ...	1 chest
T		Tongues ...	1 cask
		Tutanague ...	2 maunds
Tooth Powder ...	1 dozen	Ditto ...	20 pieces
Tea ...	1 ditto	Tea Cups and Saucers ...	9 sets
Ditto ...	4 chests		
Table Cloth ...	21	V	
Tobacco ...	11½ candies		
Ditto ...	1 box	Vinegar ...	1 dozen
Ditto ...	85½ maunds	Ditto ...	1 case
Ditto ...	8049 bundles		
Ditto ...	239 bales	U	
Ditto ...	8 bags		
Ditto ...	129 chipms	Ured, a kind of Pulse ...	250 edangallies
Tent Lace ...	7½ maunds		
Thread ...	1000 skeins		
Ditto ..	10 bags	W	
Ditto ..	3½ lbs.		
Turmerick ...	3½ candies	Wheat ...	332 bags
Ditto ..	53½ maunds	Ditto ..	13¾ candies
Table Sheds ...	9 pairs	Ditto ...	22¾ maunds
Tamarinds ...	65 maunds	Wax Candles ...	500 lbs.
Ditto ...	73¾ candies	Ditto ...	1 box
Ditto ...	11 cappats	Wooden Dishes ...	23¼ corge, or score
Ditto ...	33 bundles	Ditto ...	41 pair
Ditto ...	30 bales	Wafer Stamps ...	1 dozen

Cannanore,
31*st December* 1799.

(Signed) BRT. HODGSON,
C. Mr.

ABSTRACT of GOODS IMPORTED by SEA, from 1st January to 31st December, 1800.

Quality.	Quantity.	Quality.	Quantity.
A		Ajvan, Seed of an umbelliferous Plant ...	39 bags
		Ditto ...	1 robin
Almonds ...	7 bags	Artal Cinnabar ...	¾ maund
Ditto ...	2 cappats	Anjengo Arrack ...	3 leaguers
Ditto ...	6 maunds	Ditto ...	19 casks
Amanick Oil ...	4 jars	Arrack ...	1 leaguer
Anee Bans ...	4 pieces	Ditto ...	14 casks

Quality.	Quantity.
B	
Bamboo Mats	100¼ corge, or score
Boots	1 box
Ditto	1 trunk
Bengal Piece Goods	2 bundles
Ditto	1148 pieces
Beaten Rice	29 robins
Ditto	450 edangallies
Blankets	76 pieces
Betel-Nuts	1 bale
Ditto	9 pullon
Ditto	21 maunds, 18 lbs
Ditto	13,200
Ditto	21 robins
Blue Doties, a Cotson Cloth	59 pieces
Blue Cloth	9 corge, or score
Benjamin	10 chests
Bamboos	3900
Barley	2 kegs
Bengal Soft Sugar	98 bags
Broad Cloth	1 piece
Ditto	71 yards
Brass Lamp	1
Ditto	1 bag
Botty Wood, perhaps Viti or Black Wood	32 candies
Brass Pots	11 bags
Ditto	11 lbs.
Beer	12 hogsheads
Ditto	20 dozen
Blue	5 maunds
Boat Cloak	6 pieces
Bepo Oil	2 jars
Bamboya	2 maunds
Brandy	2 chests
Ditto	2 quarter casks
C	
Country Mats	34 corge, or score
Catcha Cloth	37 pieces
Ditto	14 bundles
Ditto	10 bales
China Hams	1 chest
Ditto	1 box
Copper Pots	1 chest
Ditto	8 bags
Ditto	4 maunds
Cummin Seed	36 bags
Ditto	1 maund
Country Shoes	10 corge, or score
Cott Lace, a kind of Tape	3 bundles
Coir, or Coco-Nut cordage	200 ditto
Ditto	6 candies

Quality.	Quantity.
Chintz	9 corge, or score
Ditto	5 pieces
Cutlery	1 chest
Chandrocse	16 bales
Ditto	5 bags
Ditto	30 cappats
Ditto	5 chests
Ditto	20 maunds
Cotton	21 bales
Ditto	19 bundles
Camphire	1 box
Ditto	1 chest
Carla	34 corge, or score
Catcheria	7 candies
Cointer Seed	3 bags
Ditto	162 edangallies
China Summerheads, Umbrellas	12
ChapaRamalHandkerchiefs	120 pieces
Cassia Laurus	17 ditto
Chana Gram, a kind of Pulse	20 candies
Ditto	50 bags
China Handkerchiefs	16 pieces
Chellas	3 ditto
Comillis	2 bales
Cochin Arrack	10 leaguers
Ditto	8 casks
Chickney Betel-Nut	2 candies
Ditto	5 maunds
Ditto	9 robins
Ditto	6 bales
Country Twine	5 maunds
Cotton	18 bundles
Country Combs	26 corge, or score
Ditto Challums	900
Copra, or Dried Coco-Nut Kernels	10 maunds
China Wax	5 chests
Coriander Seed	230 edangallies
China Flowered Sattin	1 bundle
Canvas	3 ditto
Cloth	1 piece
Candles	3 boxes
Ditto	1 chest
Coco-Nuts	154,100
Country Thread	1 bag
Chilly Pepper, Capsicum	2 ditto
Ditto	140 pharas
Ditto	3 maunds
Coco-Nut Oil	4 skins
Ditto	6 jars
Ditto	409 paddas
Ditto	65 maunds
Ditto	
Castor Oil	2½ maunds

Quality.	Quantity.
Culty Gram, a kind of Pulse	42 bags
Ditto ...	42 robins
Cherry Brandy ...	2 chests
Claret ...	1½ ditto
Confectionary ...	2 boxes
Cheese ...	8 ditto
Corks ...	1 bag
Copper Sheets ...	5 maunds
Cootnys, a kind of Cloth, Silk and Cotton ...	52 pieces
D	
Dry Dates ...	38 cappats
Ditto ...	15 bags
Ditto ...	15 maunds
Dungary, Cloth ...	67 pieces
Ditto ...	10 corge, or score
Dooties, Cloth ...	82 pieces
Dry Ginger ...	11¾ maunds
Ditto ...	10 bundles
Doll, Split Pease of the Cytisus Cajan ...	32 pharas
Ditto ...	20 maunds
Ditto ...	100 measures
G	
Glass Ware ...	1 box
Ditto ...	6 chests
Ditto	1 case
Gram Moong, a kind of Pulse ...	22 cappats
Ditto ...	18 robins
Ditto ...	11 bundles
Ganjah, Dry Flowers and Leaves of Hemp ...	44 ditto
Ditto ...	1½ maund
Googal, a kind of Incense..	9 maunds
Ginger ...	2 candies
Ditto ...	3½ maunds
Ditto ...	15 bundles
Ghee, Boiled Butter ...	17 duppers, or skins
Ditto ...	8 pots
Gram, a kind of Pulse ...	5 candies
Ditto ...	5 maunds
Garlick ...	17½ ditto
Ditto ...	5 bags
Gingham, a Cotton Cloth...	280 pieces
Ditto ...	2 bundles
Gin ..	37 cases
Ditto ...	2 chests
H	
Hooka Snakes ...	1 bundle
Hemp, Crotolaria Juncea ..	2 candies
Hats ...	1 chest
Ditto ...	3 boxes
Handkerchiefs ...	18 pieces
Hair Powder ...	3 dozen
I	
Ditto ...	43 bundles
Ditto ...	500 lbs.
Ditto ...	5 pots
Ditto ...	1½ candy
Jagory ...	19 maunds
Ditto ...	4 bags
Iron Gridles ...	10
Iron Gridle Spoons ...	1 bundle
Ditto ...	17½ corge, or score
K	
Kincob, Silk Cloth ...	1 piece
L	
Lanthorns ...	2 sets
Lutestrings ...	4 pieces
M	
Manapar Cloth ...	119 bundles
——— Onions ...	2 maunds
Medicine ...	1¼ candy
Ditto ...	1 bundle
Madeira Wine ...	½ chest
Ditto ...	3½ pipes
Ditto ...	7 dozen
Mung, a Pulse, Phaseolus Mungo ...	16 cappats
Ditto ...	5 bags
Mustard Oil ...	1 jar
Methy Seed, Fenugreek ...	20 bags
Ditto ...	1 maund
N	
Nelly, Rice in the Husk ...	385 robins
Ditto ...	370,536 edangallies
Nachany, a Grain ...	60 robins
Nankins ...	1 chest
Ditto ...	5 corge, or score
Ditto ...	3 bundles
Nilacka, Fruit of the Emblica	2 ditto

Quality.	Quantity.
O	
Opium ...	1 bundle
Oil ...	771¾ chodana
Ditto ...	59 pots
Ditto ...	350 cooties
Ditto ...	18 duppers, or skins
Ditto ...	10 maunds
Onions ...	4½ ditto
Ditto ...	3 bags
P	
Perfumery ...	4 boxes
Pomatum ...	1 ditto
Pedrum ...	3½ maunds
Paulghaut, Piece Goods ...	4673 pieces
Ditto ...	1 chest
Ditto ...	3 bales
Ditto ...	42 bundles
Plates, China ...	150 pieces
Ditto ...	35¾ corge, or score
Pine Apple Cheeses ...	10
Pantaloons ...	6 pieces
Pickles	3 cases
Ditto ...	1 box
Pale Beer ...	1½ chest
Ditto ...	5 casks
Painted Red Pearls ...	20 corge, or score
Pots of Spear ...	6
Paddy, Rice in the Husk ...	1675 edangallies
Ditto ...	2 bundles
R	
Rum ...	1 pipe
Ditto ...	2 leaguers
Rice ...	4909 robins
Ditto ...	250 dozen
Ramnath Cloth ...	2 boxes
Raisins ...	1 chest
Ditto ...	3 cappats
S	
Stockings ...	1 chest
Shirts ...	6 corge, or score
Sugar ..	14 bags
Ditto ...	3 tubs
Ditto ...	50 maunds
Ditto ...	14 chests
Sugar Candy ...	9 boxes
Ditto ...	15 tubs
Ditto ...	2 chests
Saddy ...	17½ corge, or score
Soap ...	2 bags
Ditto ...	380 pieces
Ditto ...	60 maunds
Shoes ...	3 chests
Sinimon (Cinnamon) ...	5 maunds
Shellas Cloths ...	17 pieces
Silk Piece Goods ...	30 ditto
Sadlery ...	1 box
Ditto ...	1 chest
Salt ...	2100 edangallies
Shark Fins ...	11¼ maunds
Ditto ...	1700 pieces
Sindy Salt ...	6¾ candies
Ditto ...	6000 dozen
Stationery ...	2 boxes
Surat Tobacco ...	1 bundle
Surat Gram, a kind of Pulse	88 candies
Saffron ...	2 maunds
Shaving Boxes ...	3
Sauce, Fish ...	2 kegs
Sundries ...	1 bag
Ditto ...	2 boxes
Sneakers ...	550
T	
Tea ...	3 chests
Tea Pots ...	3 pots
Tutanague ...	5 maunds
Thread ...	8 lbs.
Towra, a Pulse ...	1 robin
Tongues ...	2 kegs
Turmerick ...	2½ candies
Ditto ...	51 robins
Ditto ...	81¼ maunds
Ditto ...	4 bundles
Tobacco ...	1 chest
Ditto ...	263 chippons
Ditto ...	13,669 bundles
Ditto ...	69 bales
Ditto ...	4½ candies
Ditto ...	62 maunds
Tape ...	23 rolls
Twine ...	8 maunds
U	
Ured Gram, a kind of Pulse	14 robins

Quality.	Quantity.	Quality.	Quantity.
W		wheat ...	161 bags
		Ditto ...	9½ bundles
Wafers ...	1 box	Wine ...	1 chest
Wooden Dishes ...	40 pieces	Whips, of sorts ...	5
Wheat ...	65 cappats	Vermillion ...	1 bundle

Errors excepted.

Cannanore,
31*st December*, 1800.

(Signed) Bri. Hodgson,
C. Mr.

ABSTRACT of GOODS EXPORTED by SEA, from 1st January to 31st December, 1799.

Quality.	Quantity.	Quality.	Quantity.
A		Coco-Nuts ...	1 candy
		Ditto ...	23900
Arrack ...	36¼ leaguers	Cointer Seed ...	145 edangallies
Ditto ...	16 kegs	Country Mats ...	400
Ditto ...	150 bottles	Comblams, Country Blankets	1050 pieces
Aniseed ...	1 chest	Chelly Pepper, Capsicum	7 bags
Ajuan, Seed of an umbelliferous Plant	5 bags	Cardamums ...	6 maunds
Ditto ...	2 maunds	Chilly Pepper, Capsicum	22½ ditto
Almonds ...	1 bale	China Bowls ...	2400
		Coco-Nut Oil ..	7 pots
B		Cummin Seed ...	4 bags
		Ditto ...	3 maunds
Betel-Nut ...	12 candies	Coir Rope of Coco-Nut Husks	½ maund
Ditto ...	17 maunds		
Ditto ...	2000	Cheese ...	84 lbs.
Brandy ...	7 chests	Cotton Rope ...	7½ maunds
Beer ...	9 dozen	Coffee ...	1 box
Barley ...	1 box	Ditto ...	2 maunds
Bottles, Empty ...	650	Canvas ...	15 pieces
Budgery, a Grain ...	2 bundles	China Ware ...	2 chests
Bomblos (Dried Fish) ...	60 ditto	Ditto ...	4 dozen
Blue Duty, Cotton Cloth ...	11 corge, or score	China sweetmeats ...	2 jars
Blue Scarlet Cloth ...	6 pieces	Copper Pots ...	5 bags
		Ditto ...	22½ maunds
C		D	
Churats, Tobacco rolled, for Smoking	4000	Dholl, a kind of Pulse	2 candies
Cotton ...	12 bags	Ditto ...	20 bags
Ditto ...	27 bales	Dates ...	7½ candies
Ditto ...	24 maunds	Ditto ...	15 maunds

Quality.	Quantity.
Dates ...	4 bundles
Ditto ...	2 cappats
G.	
Gin ...	53 cases
Gram, a kind of Pulse	18 bags
Ditto ...	34 candies
Ditto ...	5 maunds
Garlick ...	2 candies
Ditto ...	6 maunds
Ganja, Dried Flowers and Leave of Hemp	7 bundles
Ghee, or boiled Butter	34 duppers
Ditto ...	1 candy
Ditto ...	7¼ maunds
Glass Ware ...	1 chest
Gloucester cheese ...	2 ditto
H	
Hing, or Asafœtida	4 bottles
Hams ...	1 candy
Ditto ...	1 chest
Hooka-Snakes ...	2
Hats and Hosiery ...	2 chests
I	
Iron ..	3 candies
Ditto ...	11½ maunds
Jagory ...	10 pots
Ditto ...	14 bundles
Ditto ...	1 candy
Ditto ...	9½ maunds
Ironmongery ...	10 chests
Ditto ...	1 box
Jackets ...	2 corge, or score
K	
Knives ...	1½ corge or score
L	
Leather ...	14¾ corge, or score
Limes ...	1 bundle
M	
Mung, a kind of Pulse	28 bags
Ditto ...	5 candies
Ditto ...	5 maunds
Madeira ...	3½ pipes

Quality.	Quantity.
Madeira ...	8 chests
Ditto ...	32¾ dozen
Moodra ...	10 robins
Mustard Seed ...	1 bag
Ditto ...	9 maunds
Metty Seed, Fenugreek	2 ditto
N	
Nankins ...	58 corge, or score
Ditto ...	15 pieces
Nelly, Rice in the Husk	4 robins
Ditto ...	12800 edangallies
O	
Onions ...	6 cappats
Ditto ...	27 bags
Ditto ..	27 candies
Ditto ...	13 maunds
Opium ...	1 bag
Ditto ...	1 bundle
P	
Pepper ...	32 candies
Ditto ...	13 maunds
Paper ...	66½ reams
Port Wine ...	9 dozen
Pantaloons ...	12 corge, or score
Piece Goods ...	4050 pieces
Ditto ...	69½ bundles
Ditto ...	92 corge or score
R	
Rose Water ...	1 bottle
Rice ...	2057 robins
Rum ...	4 pipes
Rum Shrub ...	2 boxes
Red Camblys ...	2 corge or score
Raisins ...	4 cappats
Ditto ...	3 candies
Ditto ...	15 maunds
S	
Sandal Wood ...	7 pieces
Salt ...	7 bales
Ditto ...	22500 edangallies
Sindy Salt ...	2 bundles
Ditto ...	6 cappats
Ditto ...	3 maunds
Shoes ..	1 chest

Quality.	Quantity.	Quality.	Quantity.
Shoes ...	41½ corge, or score	Twine ...	7½ maunds
Sugar ...	7 bundles	Tutanague ...	4 pieces
Ditto ...	43 bags	Tamarinds ...	2 candies
Ditto ...	4¾ candies	Ditto ...	17 maunds
Ditto ...	1 maund	Ditto ...	7 bundles
Shirts ...	17 corge, or score	Tobacco ...	62 ditto
Summerheads, Umbrellas	2 ditto	Ditto ...	12 candies
Sundry ...	1 trunk	Ditto ...	23 maunds
Ditto ...	17 bundles		
Ditto ...	1 case	V	
Soap ...	450 loaves		
Ditto ...	22 bags	Vinegar ...	7 bottles
Stationery ...	1 chest	Ured, a kind of Pulse	96 bags
Surat Tobacco ...	7¼ candies		
T		W	
Tea ...	1 box	Wheat ...	115 bags
Ditto ...	22 chests	Ditto ...	45¾ candies
Ditto ...	15 lbs.	Ditto ...	5 maunds
Tortoise Shells ...	1 maunds	Wax Candles ..	2 chests
Ditto ditto ...	4 lbs.	Ditto ...	2 maunds
Twine ...	3 bundles	Ditto ...	34 lbs

Errors excepted.

Cannanore, 31*st* *December*, 1799.

(Signed) Bri. Hodgson, C. Mr.

ABSTRACT of GOODS EXPORTED by SEA, from 1st January to 31st December, 1800.

Quality.	Quantity.	Quality.	Quantity.
A		Barley ...	1 bundle
		Beer ...	7 casks
Ajuan, Seed of an umbelliferous Plant	1 candy	Ditto ...	28 dozen
		Ditto ...	½ leaguer
Ditto ...	4 maunds	Blue Doty, Cotton Cloth	59 pieces
Ditto ...	14 bags	Ditto ...	23 corge, or score
Arrack ...	4 casks	Blue ...	5 maunds
Almonds ...	25 maunds	Brass Pots ...	6
Ditto ...	1 jar	Benjamin ...	1 chest
Ditto ...	1 bag	Ditto ...	1½ maund
Ditto ...	1 cappat	Bruces (Brushes?) ...	1 chest
		Brandy ...	2 ditto
B		C	
Bengal Piece Goods ...	155 pieces	Confectionary ...	2 pots
Betel-Nut ...	2½ maunds	Coco-Nut Oil	12 paddas
Boots ...	24 pair	Ditto ...	50 cooties

Quality. •	Quality
Cointer Seed ...	31 bags
Camphire ...	¼ maund
Cotton ...	6 candies 9¾ mds
Ditto ...	40 bundles
Chandroise ...	2 bales
Curtain Cloth ...	2 pieces
Chilly Pepper, Capsicum...	8½ maunds
Columbo Arrack ...	15 leaguers
Ditto Ditto ..	30 gallons
Cadys ...	20 pieces
Cochin Shoes ...	7 corge, or score
Chella Cloth ...	67 pieces
China Shoes ...	1 chest
Chints ...	238 pieces
Copper Pots ...	40 maunds
China Summerheads, Umbrellas	1 bundle
Comblies, Country Blankets	1½ corge, or score
Ditto ...	1 bundle
Cot Lace, a kind of Tape...	4 ditto
China Ware ...	20 chests
Ditto ...	1 basket
Ditto ...	5 dozen
China Paper ..	4½ quires
Country Medicine ...	2 bags
Country Thread ...	19 lbs
Country Twine ...	1 bundle
Ditto ...	1½ maund
Ditto ...	4 lbs.
Coco-nuts ...	19700
Combla Mass (Fish) ...	60500 pieces
Ditto Ditto	26 bundles
Coffee ...	6 chests
Ditto ...	6 maunds
D	
Dry Coco-Nuts ...	5 bags
Dupattas, a Cotton Cloth	6 corge, or score
Dates ...	37 cappats
Ditto ...	3 candies
Ditto ...	71 bales
Ditto ...	20 bundles
Dimity ...	18 pieces
Dholl, a kind of Pulse	141 maunds
Ditto ...	1 bag
Dungary, a Cotton Cloth	15 corge or score
E	
Europe Cloth ...	6 pieces
Ditto, Chints ...	9 ditto
Empty Bottles ...	109 dozen
Europe Twine ...	2 bundles
Ditto Thread ...	6 lbs.
G	
Gingbams, a Cotton Cloth	2 corge, or score
Ditto ...	8 pieces
Gram, a kind of Pulse	500 edangallies
Ditto ...	1½ candy
Ditto ...	28 bags
Gin ...	10 chests
Ditto ...	2 cases
Glass Ware ...	13 chests
Ghee, Boiled Butter ..	43 duppers, or skins
Ditto ...	2 pots
H	
Hooka-Snakes ...	1 chest
Horse-Shoes ...	10 pair
Hams ...	15 chests
Hats ...	3
Handles ...	10 bundles
Handkerchiefs ...	2 pieces
I	
Izary, Cotton Cloth ...	3 pieces
Iron, Brass (Bars?) ...	2 candies
Jack Wood, Artocarpus	25 pieces
Issence (Incense?) ...	1½ maund
K	
Knives and Forks ..	6 dozen
L	
Leather Gloves ...	1 dozen
Large Nails ...	225
Lime Pickles ...	6 jars
Ditto ...	200
M	
Methy Seed, Fenugreek ...	1 maund
Maneary ...	2 chests
Mowdah ...	9 ditto
Manapar Cloth ...	57½ bundles
Ditto ...	34 pieces
Madeira Wine ...	3 chests
Ditto ...	½ pipe

Quality.	Quality	Quality	Quality
N		South Cloth	5 pieces
		Sandal Wood	14325 ditto
Nankins	54 pieces	Saddy	288 ditto
Nutmegs	12 lbs.	Sugar	16 chests
Nelly, Rice in the Husk	2500 edangallies	Ditto	5 candies 3 maunds
		Ditto	18 bags
O		Spanes Glass (Spying Glasses)	7
Opium	12 lbs.	Sugar Candy	10 chests
Orny, Gold Thread	5 pieces	Ditto	15 tubs
Onions	7 candies	Stationery	3 chests
Ditto	3 bags	Sundry Europe Articles	6 ditto
Oil	13 duppers, or skins	Scissars	3 dozen
		Salt	1 bale
P		Ditto	7 cappats
		Stockings	1 trunk
Piece Goods	8 corge, or score	Salmon	1 bag
Ditto	37½ ditto	Shot	2 bags
Ditto	671 pieces	Silk Handkerchiefs	1 piece
Portuguese Paper	2 chests		
Ditto ditto	128 reams	**T**	
Ditto ditto	5 quires		
Padlocks	15 dozen	Tobacco	1 candy 5 maunds
Palighat Tobacco	2 bales	Ditto	93 bundles
Ditto Piece Goods	200 pieces	Ditto	32 cappats
Perfumery	2 boxes	Turbands	20 pieces
Pins	1 bundle	Taffetas	1 corge, or score
Port Wine	2 chests	Ditto	15 pieces
Pickles	2 cases	Turmerick	2 maunds
R		**V**	
Rice	500 edangallies	Ulva Seed	4 bags
Ditto	1542 robins	Vinegar	2 chests
Razors	30 dozen	Ditto	3 casks
Rum	1 chest		
		W	
S			
		Wax Candles	1 chest
Super San	3 pieces	Ditto	3½ maunds
Surat Tobacco	3 candies ¼ maund	Wine Glasses	1 chest
Ditto	9 bundles	Wetery	1 ditto
Soap	274 bags	Wheat	6½ candies
Silver Epaulettes	1 pair	Wine and Claret	2 chests

Errors excepted,
(Signed) BRI. HODGSON,
C. Mr.

Cannanore,
31st *December*, 1800.

ABSTRACT of GOODS EXPORTED by LAND, from 1st January to 31st December, 1799.

Quality.	Quantity.
A	
Almonds	28 maunds
B	
Betel-Nut	1000
C	
Cady	14 pieces
Coco-Nut	1200
Cotton	30 maunds
Ditto	14 bags
Coco-Nut Oil	22 paddams
Catcha Cloth	10½ pieces
Comblies, Indian Blankets	5 corge, or score
Chilly Pepper, Capsicum	30 maunds
Canga	3½ corges, or score
Cloves	4 lbs.
D	
Dates	8½ candies
Ditto	79 maunds
Ditto	24 bales
Dholl, a kind of pulse	10 maunds
Doria, a Cotton Cloth	2 pieces
G	
Garlic	5½ maunds
Gram, a kind of pulse	5 ditto
Ganjah, Dried Flowers and Leaves of Hemp	14 bundles
Ganjah, Dried Flowers and Leaves of Hemp	96 lbs.
Glass Ware	1 box
Ditto	1 chest
H	
Hats	1 chest
Handkerchiefs	17 pieces
Hing, or Asafœtida	2 maunds
I	
Jagory	1 bag
K	
Kissemis, Raisins	1¼ candy
Ditto	10 maunds
M	
Mung, a kind of Pulse	16 maunds
Mustard Seed	½ ditto
Maniary, Beads	3 boxes
Ditto	2 chests
Ditto	1 bag
N	
Nankins	10 pieces
Nails	1½ maunds
O	
Opium	4lbs.
P	
Post Paper	19½ ream
Ditto	1 bundle
Piece Goods	2104 pieces
Ditto	29 bundles
R	
Raisins	4 bundles
Ditto	14¼ maunds
S	
Sugar	3¼ candies
Ditto	4 maunds
Salt	12 bags
Ditto	78700 edangallies
Shirts	½ corge, or score
Soap	195 pieces
Ditto	3 bags
Shoes	2 corge, or score
Scissars	3 dozen
Surat Gram, a kind of Pulse	3 bags
Saddy	1 piece
Sindy Salt	5 maunds
T	
Tobacco	25½ maunds
Tamarinds	1 candy
Ditto	6 maunds
Tatton	3 pieces
W	
Wax Candles	1 box

Errors excepted,

Cannanore, }
31*st December* 1799. }

(Signed) Ben. Hodgson.
C. Mr.

ABSTRACT of GOODS IMPORTED by LAND, from 1st January to 31st December, 1800.

Quality.	Quantity.	Quality.	Quantity.
A		Doty, a Cloth ...	2 pair
		Dongary, a Cotton Cloth	22 ditto
Almonds ...	40 maunds	M	
C			
		Manapar Cloth ...	57 pieces
Country Medicines ...	2 bags	Ditto ditto ...	8 bundles
Cumblies, or Indian Blankets	1 corge, or score	Ditto ...	6 corge, or score
Coco-Nut Oil ...	50 cootys		
Chella ...	3 pieces	S	
Cotton ...	39¼ maunds		
Comblies, or Indian Blankets	10 pieces	Summerheads (Umbrellas)	1½ corge, or score
Camphire ...	½ maund	Salt ...	1,03,0080 edan-gallies
Catcha Cloth ...	4 bales		
		Sugar ...	6 cappats
D		Ditto ...	7½ maunds
		Ditto ...	9 tubs
Dholl, a kind of Pluse	1 maund	Scissars ...	3 dozen
Dates ...	34 cappats	Soap ...	1 maund
Ditto ...	1 maund	T	
Ditto ...	3 candies		
Ditto ...	33 bales	Turpentine Oil ...	1½ dozen

Errors excepted,

Cannanore,
31*st December*, 1800.

(Signed) Eri. Hodgson,
C. Mr.

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——— rayada or Subayana, a division of the Mysore kingdom, formerly a principality. See appearance of the country. Rajas of Chatrakal. i. 55.
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Cumti, a town of Haiga, ii. 307.
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Cuncheny, dancers, musicians, and prostitutes. See Prostitutes, and i. 9, 213, 343, 475. ii. 8, 322.
Cunian, a low caste of Malabar, containing astrologers, jugglers, and the like. See Cani, ii. 176, 239.
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Granite, a kind of rock, i. 12, 18, 36, 91, 113, 126, 335, 352. ii. 78, 116, 129, 249, 263, 264.
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Gudada, a female deity of the Hindus, i. 320, 323.
Gudy, a temple of the Brahmans, ii. 254, 259, 292.
Guddy, Shanaboga, or Sheristadar, register of a district called Hobly, in Mysore, i. 187.
Guides, i. 458. ii. 245.
Gujah, a measure of length, i. 90.
Gum, produced by various trees, i. 116, 142.
Gungoma, one of the deities called Saktis, i. 169.
Gungricara, a caste occupied in agriculture, i. 374.
Gunta, a land measure of Canara, ii. 202, 273.
Gunti beru, a dye, i. 373.
Gurjara, a nation of Hindus, ii. 264.
Gursay, a weight. See Weights, and Garse.
Guru, (i. e., sage) religious instructor and inspector of morals, called also Swamalu, as a title; for the customs of each caste respecting their Guru, see Castes, i. 15, 100, 167, 168, 170, 176, 178, 212, 213, 214. ii. 257, 267, 349.
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Guti. See Chandra-gupti.
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Gydda cavila. See Forest-renter.
Gytty Varaha, an imaginary money, i. 400.
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Iswara, a name of the god Siva. See Siva.
Itica-cullu, a stone used instead of brick. See Laterite.
Jacadeva Rajas, a dynasty of princes in Karnata. See Chenapattana.
Jack, a fruit tree. See Artocarpus.
Jadar, a caste of weavers. See Devangas, Teliga, i. 458, 472.
Jaghire, land granted as a remuneration for services, with full jurisdiction, i. 391, 448.
Jagory, the sweet inspissated juice or extract of several plants. See Borassus, Cocos, Elate, Sugar-cane.
Jainas, or Arthitta, a sect of Hindus, now reckoned heretical. See Rajas of Tulava, i. 100, 168, 231, 292, 344, 345, 349. ii. 216, 253, 254, 258, 264, 277, 290, 293, 294, 315, 474, 488.
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Jola, a kind of corn. See Holcus sorghum.
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Karnata, the people and language of one of the divisions in Hindu geography, which occupies the centre of the Peninsula, i. 418, 422. ii. 264, 274, 342.
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Kaveri, a river. See Cavery.
——— pura, a town of Coimbetore, i 422.
——— ——— ghat, a pass between Coimbetore and Mysore. See Ghats.
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Kellamangalam, ii. 506.
Kemodu, an ore so called, ii. 464.
Kempu-bumi, a rich red soil, i. 57.
Kerala, the west coast of the Peninsula, its people and language vulgarly called Malayala. See Malayala.
Kerit Ram Raja, proper title of the King of Travancore. See Travancore.
Kevir, a kind of corn. See Cynosurus.
Kilidi. See Ikeri.
Kingara, a village of Mysore, i. 33.
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Kizri, a silver coin, i. 88.

Krishna, a deity of the Hindus, i 241, 342, 455.
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——a river bounding the Peninsula on the north.
—— Raja Pagoda, Hun, or Varaha, a gold coin, ii. 219.
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Kshatriya, the second in rank of the pure tribes of Hindus. See Rajput, Ladaru, Chitrakaru, i. 177, 179, 180, 210, 231. ii. 51, 258.
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Lime and lime-stone, i. 21, 29, 30, 91, 323, 327, 336, 421, 443. ii. 7, 23, 30, 296.
Linga, an indecent form under which only the god Siva is worshipped, i. 165.
Lingait or Lingabuntaru, a sect who worship the Linga, carrying it tied to their necks. See Banijigaru, Pancham, Sivabhaktaru, Jangama, Sarvaka, Curubaru, Devanga, Shaynaguru, i. 231, 313, 368, 480.
Lathomarga, a kind of clay, i. 323 326.
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Locusts, i. 39, 95.
Lokika, a Brahman who pursues the business of the world. See Brahman.
Lol Sing, a noted robber, ii. 345.
Lovadika, a Brahman who occupies himself in worldly affairs. See Brahman.
Low-land on the western coast of India, such as has a sufficient supply of water to enable the farmer to inundate it for cultivation, analogous to the Nir' arumba of Mysore and the Nunji of Coimbetore, ii. 63, 64, 69, 75, 84, 108, 117, 120, 142, 147, 150, 154, 158. 169, 184, 197, 199, 202, 228, 232, 234, 245, 260, 390.
Lubbay, or Lubbaymar, an Arabian colony, in India. See Moplay.
Lumbadies, a kind of ruffians who supply camps with grain, i. 391, 395, 406, 412, 415, 417, 419, 421, 422, 505.
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——, a sect established by him. See Brahmans.
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Madura, a town and principality in the south of the Peninsula. See Trimula Nayaka, i. 429, 455, 460, 464. ii. 20, 37.
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Mahasura, a capital city of Karnata, called by Europeans, Mysore. See Mysore.
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Mahe, a French settlement on the coast of Malabar, ii. 168.
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Maize, a kind of corn. See Zea.
Majelu, a description of land in Canara. See Low-land, ii. 232, 260.
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——, a province. See Appearance of the Country, Chap. XI. XII. and XIII. ii. 51, 52, 110.
Malabar Fanam, a silver coin, ii. 183, 220.
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Malaya Curubaru, a rude tribe. See Curubaru.
———, Devaru, or Maladeiva, a female deity of the Hindus, ii. 97, 155.
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————, or Malayalam, a country extending along the west coast of the Peninsula, from Cape Comorin, to the Chandra-giri river, also its people and language, called Kerala in Sanskrit, i. 427. ii. 50, 51, 82, 139, 156, 177, 188, 194, 211.
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———, a country so called, ii. 475.
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Managu, or Mana, a weight vulgarly called Maund. See Weights, Maund.
Manar, a male deity of the Hindus, i. 479.
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Measures of length, and itinerary. See Ady, Chain, Culy, Day's journey, Gujah, Hardary, Mar, Urnalivully, i. 4, 90, 411, 416, 435, 437.

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Meer Saduc, the favourite of Tippoo Sultan, i. 44, 240, 354, 451, 455.
Mentea, a kind of pulse. See Trigonella.
Meru, a fabulous mountain, in Hindu cosmography, ii. 256, 266.
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Mica, a mineral, i. 95, 333.
Mile, Malabar, an itinerary measure with the English of Madras. See Urnalivully.
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Mill, oil, i. 189.
——, sugar, i. 110, 237, 363. ii. 518.
Mimosa saponaria, a tree, i. 26, ii. 43.
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————, Indica, ii. 495.
Minamolu, a kind of pulse. See Phaseolus minimoo.
Mines. See Gold, Iron.
Mirzee, ii. 307, 313.
Mlecha, a barbarian, a person who is not a Hindu, an Arab, ii. 257, 269.
Mohur, and Half Mohur, gold coins, i. 88.
Mogayer, a caste of Canara, who are fishermen, ii. 217.
Mojaru, a kind of land in Canara. See Lowland, ii. 234.
Mona, and his descendants, or Monayer, an Indian dynasty, ii. 269.
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Monkeys, i, 332, 343, 370. ii. 48.
Monro, Major, a collector in Canara, ii. 210, 212, 215, 226, 254. 293, 323, 325, 326, 332, 333, 336, 345, 348.
Moplays, or Moplaymar, a colony of Arabian Mussulmans in India, ii. 52, 80, 82, 102, 112, 136, 150, 190, 192, 123, 194, 198, 200.
Morasu, a caste of Sudras of Karnata, who live by agriculture, i. 221.
Morau, a dry measure of Coimbetore. See Candaca.
Moray, a land measure of Canara, ii. 202.
Moray, a dry measure of Canara. ii. 221, 273.
Morinda, a family of plants, producing a red dye. See Muddi.
Mortgage, ii. 65, 66, 89, 92, 108, 118, 133, 141, 144, 225.
Mosque, a Mussulman temple, i. 9, 464. ii. 96, 103.
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Mount Dilla, a promontory on the coast of Malabar, ii. 196.
Mourning, ii. 93.
Mousa, a great merchant of Malabar, ii. 126, 178, 180, 200, 216, 262.
Movivan family, an Indian dynasty, ii. 279.
Moylar, a caste serving in the temples of Canara. ii. 247.
Muchaveru, a caste. i. 210.
Muchu cotay, a kind of pulse. See Dolichos lablab.
Mucuas, a low caste of Malayala, living as fisher men, ii. 175.
Mucutu, a rich black soil, i. 57.
Muddi, a red dye, the root of several kinds of Morina, i. 116, 148, 473. ii. 43.
Mudi, a dry measure of Canara. See Moray.
Mudivirum a male deity of the Hindus, ii. 45.
Mudo Biddery, a town of Canara, ii. 254.
Muduru, a town of Mysore, i. 38, 96.
Muga-nayakana-cotay, a town of Mysore, i. 317.
Mulacara, an occupant of land in Tulava, ii. 225.
Mular, one of the petty Rajas of Tulava, ii. 246, 247.
Mulinuru, a ruined town of Coimbetore, ii. 23.
Muluru, a town of Mysore, i. 355.
Mundien, a male deity of the Hindus, ii. 98.
Mundium, a town of Mysore, i. 39, 95.
Mung, a kind of pulse. See Phaseolus mungo.
Muni, a kind of demons or spirits, i. 174, 408, 475, 479.
——, a saint, i. 408.
Munigar in Mysore, an inferior officer of revenue and police, i. 189.
————, Coimbetore, chief officer of a village, or manor. See Gaunda, i. 439.
Munnagu, a weight commonly called a Maund. See Weights. Maund.
Murder, i. 440. ii. 135, 154.
Murodeswara, ii. 296.
Musa, the plantain tree, i. 106, 267, 330, 369, 414, 462, 470. ii. 161, 235, 355.
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Mussulmans. See Moplays, Mosque, Tangul, i. 32, 44, 50, 240, 277, 296, 355, 408, 476. ii. 2, 9, 23, 102, 116, 139, 190, 203, 209, 274, 278.
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Mustard cultivation, i. 202, 261, 414.
Mutasiddy, a clerk, i. 438, 440.
Muteodu, ii. 457, 458.
Mutialima, one of the deities called Saktis, i. 183.
Mutraya, or Mutiraya, a male deity of the Hindus, i. 299, 323.
Mutu-pallay. See Plank.
Myrobalans, a fruit used in tanning and dyeing, i. 126. ii. 44.
Mutti. See Chuncoa muttia.
Mysore city, properly Mahasura. i. 46, 396.
——— dominions and Government, i. 55. ii. 490, &c.
———Raja. See Rajas of Mysore, i. 88.
————Rupee, a silver coin.
Myuru Varma, a Hindu prince, ii. 225, 259, 269, 270, 279.
Nadavanuru, a place in Malabar, ii. 154.
Nagamangala, a town of Mysore, i. 339.
Naga-puri, ii. 469.
Nagara, or Naggara, the common name for Hyder Nagara, or Bideruru, a capital city of Karnata. See Bideruru.

Nagara, or Naggara Rayada or Subayana, one of the three great divisions of the Mysore kingdom. See Appearance of the country, i. 55.
Nagara Agrarum, a town of Canara, ii. 246.
Nagaratra, a caste of traders. See Bheri.
Nail-makers, ii. 455.
Nairs of Naimar, the true Sudras of Malayala, a caste, their customs and manners, ii. 54, 80, 81, 84, 93, 165, 200, 208, 211.
———— their inroads into Mysore and Coimbetore, i. 359, 383, 461. ii. 40, 41.
Nalli, a dry measure, ii. 150.
Nama, a kind of earth or talc, i. 347.
Nambir, Nairs of high rank, chiefs of manors or Desas in Malayala, ii. 94.
Nambuddies, a caste of Malayala, formerly Brahmans, ii. 106.
Namburis, the Brahmans or sacred tribe of Malayala. See Brahmans.
Nandi, a village god, ii. 378.
Nara, a dry measure, ii. 84.
Narasingha-pura, a town of Mysore, i. 399.
———— angady, a town of Canara. See Jamalabad.
Narayana, a Hindu deity, i. 211, 232, 233. ii. 256,
Natives of India, their condition, disposition, and manners. See Hindu.
Nava-putty, a village, 423.
Navonay, a kind of corn. See Panicum italicum.
Nayaka, a Hindu chief, i. 19.
Nayakan Eray, a place in Karnata annexed to the Bara-mahal, i. 19.
Naytrana Guda, ii. 296.
Nazarbar, a fortress in Mysore, i. 46
Nazarens, or Christians of St. Thomas. See Christians.
Negadi, a tax on lands and plantations in Malabar. See land-tax.
Nellala, a country between Mysore and Malabar. See Wynaad.
Nerium tinctorium, Roxb. MSS., a tree from which indigo is prepared. See Indigo.
Nerinja petta, a town of Coimbetore, i. 426.
Netrawati, the river passing Mangalore in Canara, ii. 246.
Niadis, wretched low caste of Malayala, ii. 96, 152.
Nidamaly, a female deity of the Hindus, ii. 145.
Nileswara, a town of Canara, ii. 208, 209, 211.
Niligaru, persons who dye with Indigo. See Cumbharu.
Nir' Arumba in Karnata, lands that are artificially watered for cultivation, analogous with the Nunji of Coimbetore, and the low-lands of the west coast. See watered lands.
Niravery land, ii. 476.
Nir' gunty or distributer of water, a village servant in Mysore, i. 188.
Nona, or Nonabur, a caste of the Sudras of Karnata living by agriculture, i. 313.
Nonaputta, a kind of Morinda used as a dye. See Muddi.
Noyel river, or Noyelar in Coimbetore, ii. 3.
Nucaru, a class of impostors living by incantations, compare with Cani, ii. 214.
Nuga, a river of Mysore, i. 387.
Nundy, and his family, an Indian dynasty, ii. 278.
Nunji, land which can be inundated for cultivation, analogous to the low land of the west coast, and the Nir' Arumba of Mysore, i. 442.
———— a servant in each village who distributes the water to the fields, i. 439.
Nunjinagoda, a town of Mysore, i. 393.
Nutmeg, ii. 313.
Nux vomica, a drug, ii. 262.
Obscenity of the Hindu worship. See Indecent.
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Oil-makers. See Ganagaru.
Oil-mills, i. 159.
Onore. See Honawera.
Opium. See Poppy.
Orchards, ii. 498.
Ordeal, trial by, i. 213.
Orhur a kind of pulse. See Cytisus.
Oryza sativa L., a kind of corn. See Rice.
Oulur, a town of Arcot, i. 10.
Ox, and animals of that kind, i. 2, 80, 114, 142, 143, 290, 295, 297, 299, 371, 416. ii. 37, 74, 75, 148, 163, 198, 242, 434, 435.
Pacha Pyru, Pacha Pessaru, a kind of pulse. See Phaseolus mungo.
Pacota, a machine for raising water. See Yatam.
Pachumma, a female deity of the Hindus, i. 479.
Padanguddy, a place in Canara, ii. 253.
Padingi, a kind of pulse. See Phaseolus mungo.
Padda, Paddum, or paddy-field, a name for low land in Malabar. See Low-land.
Padma Shalay a caste of weavers. i. 150, 178.
Pagoda, English name for a Hindu temple. See Temple.
————, English name for a gold coin called Varaha by the Hindus, and Hun by the Mussulmans. See Bahadury P., Canter raya P., Gytty P., Ikeri P., Krishna Raja P., Porto novo P., Star P., Sultany, P.
Painting, i. 50.
Paisachi, a kind of evil spirits, i. 325. ii. 214, 218, 239, 276.
Paissa, a copper coin. See Coin, Dub, and ii. 183, 220.
Palace and houses of Indian princes i. 21, 31, 47, 49, 50, 357, 464. ii. 183, 184, 193.
Palachy, a town of Coimbetore, ii. 31.
Palam, a gold coin commonly called Fanam. See Fanam, gold.
Palar, great, a river of Arcot, i. 16, 23.
———— little, a river of Karnata, i. 417, 418.
Palhully, village of Mysore, i. 353.
Pali-ghat, a town and fortress of Malabar, ii. 50, 53.
Paligonda, a town of Arcot, i. 13.
Palli, a caste of Tamuls of doubtful purity, i. 182, 479.

Palm and Palm-wine. See Borassus, Caryota, Cocos, Corypha, Cycas, Elate, Tari.

Palmira, a palm. See Borassus.

Panay, an hydraulic machine. See Yatam.

Panch-akshara-pura, ii. 506.

Panchala, a caste containing the artists who work in gold, silver, brass, iron, stone and wood, i. 175, 476.

Panchama Banijigaru, a caste. See Banijigaru.

— —— Cumbharu. See Cumbharu.

Panchanga, in Mysore and Coimbetore, a Brahman who has the hereditary office of astrologer and almanack-keeper, and Purohita for the low castes in each village or manor. See each caste for the duties which he performs to its members, i. 164, 165, 368, 458. ii. 20, 326.

Panch Dravada Brahmans, those of the south of India. See Brahman.

—— Gauda Brahmans, those of the north of India. See Brahman.

Panshum Bundum, the impure tribes of Hindus. See Hindu, Madigaru, Coramas, Whalliaru.

Panicar, in Malabar, a hired servant who labours in the field. See Servants.

Panicum italicum L., a kind of corn or millet, i. 73, 202, 254, 258, 262 263, 268, 279, 281, 284, 401, 428, 447, 449, 466, 467. ii. 5 427, 446.

———— miliaceum L., a kind of corn, i. 202, 254, 258, 264, 285.

———— miliare E. M., a kind of corn, i. 72, 200, 261, 283, 365, 445, 449. ii. 11, 19, 28, 34, 74, 108, 122, 124, 198, 252, 502, 509, 510.

Pandava, or Pandia, a country of India on the east side of Cape Comorin, i. 429, 455.

Pandu and his family, Kings of India, commencing with Yudishtara, ii. 268, 269, 278.

Paniau, a low tribe or caste of Malabar, ii. 154.

Pani Varagu, a kind of corn. See Panicum miliaceum and Paspalum pilosum.

Paush Seer, a weight. See Weights, i. 89.

Panyani, or Panani Wacul, a town and river of Malabar, ii. 101, 103.

Papanasani, a river of Canara, ii. 270.

Papaver somniferum L. See Poppy.

Para Brahma, a deity of the Hindus, i. 99, 211, 232, 233.

Para Devata, a female deity of the Hindus, ii. 151.

Parasu Rama, one of the Avatars or incarnations of Vishnu. See Era, Malayala, Tulava, and ii. 51, 139, 157, 224, 258, 265, 270.

Parents, deceased, among the Hindus, their memory celebrated by fasts, both monthly and annually. See Fasts, and i. 171, 213, 292. See also each caste for its customs on this subject.

Parichitta, and his family, an Indian dynasty, ii. 278.

Parputty, in the Mysore government, an officer who keeps the registers of a district (Taluc), or manages a division (Hobly), i. 56, 188, 397.

Parriar, a very low and impure caste among the Tamuls, and in Malayala, analogous with the Maliwanlu of Telingana and the Whalliaru of Karnata; some are weavers, most of them slaves, i. 14, 245, 472. ii. 152.

Parum, Parumba, Perm, or Purm, the higher parts of the cultivated lands in Malabar. See High-lands, ii. 200.

Parupa-nuda, a district of Malabar, its Raja, and chief town, ii. 111, 136, 137.

Parvati, a deity of the Hindus. See Kali, i. 223, 233, 475, 477.

Paryunura, a village of Malabar, ii. 80.

Pashandi, a sect of Hindus, i. 344, 345.

Pashar, a village of Coimbetore, ii. 12.

Pashu, a sect of Hindus. See Ganapalyam.

Paspalum frumentaceum Roxb. MSS, a kind of corn, i. 73, 200, 263, 445, 449. ii. 447.

———— pilosum Roxb. MSS, a kind of corn, i. 446.

Pasture, i. 189, 207, 300, 302, 356, 371, 447. ii. 2, 5, 37, 123, 202.

Patana or Pattana Puttun, the common name for Seringapatam. See Seringapatam.

———— ——Rayada or Subayna, one of the three great divisions of the Mysore kingdom. See Appearance of the Country, i. 55.

———— ———— ashtagram, a district of Mysore, i. 56.

Patemar, a kind of trading vessel. See Boat.

Patom, the rent or produce of lands in Malabar, ii. 64, 66, 85, 108.

Patunga, a dye, i. 156.

Paycottu, a female deity of the Hindus, ii. 45.

Pedda Nayaka, a Polygar or Hindu chief, i. 19.

Pedda Nayakana durga, a town of Mysore annexed to the Bara-mahal, i. 19.

———— ———— ghat, a pass in the mountains leading up from Arcot to Karnata, i. 17.

Pepper, black, cultivation. See Piper nigrum, Plantations.

————, trade in. See Plantations, i. 140. ii. 125, 177, 243, 305, 360, 389.

————white, ii. 132, 179, 358.

Perinduru, a town of Coimbetore, ii. 9.

Peruru, a town of Coimbetore, i. 464.

Petta, the suburbs or slightly fortified parts of an Indian town. See Town, i. 310.

Peymashi, a land surveyor, i. 437.

Phaseolus minimoo Roxb. MSS, a kind of pulse, i. 64, 198, 202, 266, 366, 447. ii. 11, 34, 73, 86, 231, 328, 407, 515.

————mungo L., a kind of pulse, i. 64, 201, 266, 285, 447. ii. 11, 34, 73, 231, 328, 407, 515.

Phulagana Ellu, a plant cultivated for its oil. See Sesamum.

Pigeon Island, ii. 296.

Pigeons, wild, i. 326.

Pilgrims and Pilgrimages. See Tirthas and Kshetras.

Piper Betle L., Betel-leaf vine, its cultivation, i. 78, 203, 267, 369, 469, 470. ii. 124, 240, 261, 310. 358, 482, 519.

—— nigrum L., or pepper vine, its cultivation. See Plantations, ii. 64, 125, 128, 131, 147, 160, 170, 172, 185, 187, 192, 198, 202, 221, 236, 240, 311, 357.

Piper nigrum, wild, ii. 44, 335, 342, 347, 371, 382.
Pirates, ii. 297, 306.
Planks, used as an implement of agriculture for smoothing the soil, ii. 70, 71, 121, 229, 231, 300.
Plantain tree. See Musa.
Plantations of Malabar and Canara. See Areca, Artocarpus, Borassus, Cocos, Piper. Also, ii. 64, 91, 109, 124, 128, 147, 158, 170, 174, 185, 188, 198, 202, 225, 234, 240, 247, 261, 262, 274, 336, 394, 401, 482, 518.
——— ——— manner of dealing for the produce between the merchant and cultivator, ii. 88, 90, 124, 134, 167, 173, 178, 188, 237.
Plough, i. 87, 442. ii. 70, 230, 304, 370.
———drawn by from eight to sixteen oxen, ii. 440.
———of land, ii. 443.
Ploughing, i. 87, 196.
Podi, a dry measure, ii. 4, 25.
Pogalur, a village of Coimbetore, ii. 13.
Polam, a weight. See Weights, i. 4, 400, 436, 465. ii. 55, 84.
Poliar, a tribe of slaves in Malabar, ii. 151.
Police, i. 440. ii. 209.
Poll-tax, i. 116,. ii. 3.
Polyam, the territory held by a Polygar, i. 391.
Polygar, the feudatory Indian lords established by the Kings of Vijayanagara. See for each the town from whence he derived his title, i. 194, 229, 240. 248, 251, 411. ii. 20, 24, 30, 31, 37, 290, 504.
Pondichery Rupee, a silver coin, i. 437. ii. 25.
Pouna, a kind of cultivation in the hills of Malabar. See Hills.
Poor. See Beggars.
Popli, a dye, i. 116, 305, 373.
Poppy, cultivation and produce, i. 205. ii. 512.
Population, general state. See Appearance of the country.
Population of certain places and districts, i. 52. ii. 61, 116, 146, 157, 162, 175, 185, 198 203, 204, 336, 372, 490, &c.
Poray, a dry measure, ii. 55, 84, 141.
——— candum, a land measure, ii. 55, 62, 84, 142.
Porters, i. 1.
Porto-novo Pagoda, a gold coin, i. 436 ii. 54, 219.
Portuguese of Malabar, ii. 168, 275.
Post, an intoxicating liquor of the Mussulmans and Hindus, ii. 513.
Potail, a name for the chief officer of a village or manor. See Gauda, Gaunda.
Potato, sweet. See Convolvulus.
Potla, a kind of land in Canara. See Low-land, ii. 234, 260.
Pot-stone, a kind of stone, i. 333, 336, 387, 390, 392, 393, 460. ii. 473, 474.
Potty, a chief among the Namburi Brahmans. See Brahmans.
Poultry, i. 219, ii. 76.
Price current of goods at different places, i. 135, 152. ii. 141, 508.
Priests. See Bombolu, Brahman, Jangama, Gauda, Village gods, Christians, Pujari, Satanana, Jambu, Purohita.
Printing of cotton Cloth, i. 155.
Pritapa rudrun, ii. 535.
Priyapatana, a town of Mysore, i. 356, 358.
Prophecy among the Hindus, ii. 265, 530.
Prostitutes, i. 475. ii. 248, 268.
Pucka seer, a dry measure. See Seer.
Puckally, a machine for raising water. See Capily.
Pudameni, a gold coin. See Vir' Raya Fanam
Puddial, or pudial, in Coimbetore, a hired farm-servant. See Servants and Wages.
Puddy, a dry measure, i. 252, 287, 436, 465. ii. 4, 25, 33, 55, 143.
Puja, worship of the Hindus, i. 226, 478.
Pujari, the priest who offers worship, i. 169.
Puil, a weight. See Weights, ii. 4.
Pulla, a temple in Canara, ii. 212.
Pulses, or leguminous plants the seed of which is fit for eating. See Arachis Cicer, Cytisus, Dolichos, Phaseolus, Trigonella.
Pumpkin, i. 414.
Punapuram, a village of Coimbetore, ii. 30.
Pundarum, a sect of Hindus, who officiate in temples of Siva, i. 344. ii. 39.
Pungal, in Coimbetore, a kind of servants. See Servants.
Punji, in Coimbetore, arable lands that cannot be inundated. See Dry-field.
Puranas, books held sacred by the Hindus, and supposed to have been written by Vayasa, i, 344. ii. 255, 265, 530.
Purnea, Dewan, or minister of the Mysore Raja, i. 41, 354, 355, 386, 391.
Purohita, among the Hindus, a kind of priest who reads prayers at births, marriages, funerals, and other solemn occasions. See Panchanga, i 165, 224, 392, 459. ii. 20, 94, 267.
Putalima, one of the deities called Saktis, i. 183.
Putcary, a kind of pulse. See Dolichos lablab.
Puttuegars, silk weavers, i. 145.
Pu or Puli Varahun, a gold coin. See Star Pagoda.
Pychi Raja, a chief of Malabar. See Cotay huttay.
Pyr' arumba, in Mysore, arable land that cannot be inundated. See Dry-field.
Pysachi, a kind of devils. See Paisachi.
Pyurmalay, a district of Malabar, ii. 156.
Quarries. See Granite, Hornblend, Pot-stone, i. 91, 125, 297, 335, 336, 347, 352, 372, 389, 391, 392, 393, 395, 407. ii. 18, 294.
Rachewar, or Rajawar, ii. 506.
Ragy, a kind of corn. See Cynosurus.
Rajas of Chatrakal. See ii. 442.
——, Ikeri, ii. 289.
——, Malayala numerous petty chiefs. See Cadutanada, Chericul lands, Cochi, Colatanada, Nileswara, Parapanada, Shekhury, Tamuri, Travancore, Vellater, ii. 52, 66, 84, 96, 104, 110, 112, 136, 137, 145, 156, 163, 189, 194.

Rajas of Mysore, or princes of that country, i. 45, 46, 102, 250, 251, 296, 339, 343. 357, 382, 387, 391, 405, 411, 424, 454, 455, 460, 464. ii. 20, 485, 493, 500, 505.
—— of Sudha-pura, ii. 350.
—— of Tulava, ii. 213, 214, 215, 246, 250,* 254, 258, 270, 278, 289, 290, 535.
Raiasa, a letter writer, i. 440.
Rajput, the pure Sudras of a country in the north of India, i. 211.
Rain. See Weather.
Rake drawn by oxen. See Harrow, ii. 301, 366.
Raksha, a devil, ii. 257.
Rali, a kind of corn. See Cynosurus.
Ram Row, Subadar of the Nagara Rayada, ii. 382.
Rama, an Avatar or incarnation of the god Vishnu, i. 299, 405, 429. ii. 256, 260.
Rama Anuja Acharya, a personage among the Brahmans, of great celebrity, as founder of a sect, i. 100, 342, 345, 349, 362. ii. 489, 530.
Rama-giri, a town of Mysore, i. 113.
Rama Rajas, ii. 535.
Ram'tila, a plant cultivated for oil. See Hut's Ellu.
Ramuppa Varmica, an intelligent Brahman, ii. 274, 277, 278.
Randaterra, a district of Malabar, ii. 191.
Rath, an immense chariot in which the images of the Hindu gods are carried in procession, i. 9, 455. ii. 505.
Ratna-giri, ii. 523.
Ravana, a king celebrated in Hindu fable, i. 429, 455.
———, king of Ceylon, ii. 297.
Ravenshaw, Mr., a collector in Canara, ii. 202, 226, 254, 272.
Raya-cotay, ii. 523.
Rayalu, corrupted into Ryl, a title of the Kings of Vijayanagara, or Anagundi. See Vijayanagara, i. 382.
Raya paditti, or table of princes, ii. 278, 415, 531.
Read, Colonel, collector of the Bara-mahal, &c. i. 415, 417, 424, 435. ii. 16, 202, 210, 523, 525.
——, Mr., a collector in Canara, ii. 274, 303, 334, 335, 371.
Reaping-hook, i. 61. ii. 230.
Reddle, or red clay, i. 325, 351.
Register of districts and manors. See Parputty, Shanaboga, Canicapillay, Survey.
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——, manner of preserving and preparing it for use. See Grain, i. 62. ii. 70, 230, 301.
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Priyapatana, i. 362.
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Ricinus palma Christi L., a plant cultivated for its oil, i. 74, 159, 201, 255, 264, 285, 447. ii. 34, 77, 368, 429.
Right-hand side division of Hindus, or Ballagai. See Hindus.
Rings of glass used as bracelets, i. 104.
Rishis, suppositious persons of great celebrity among the Brahmans. i. 245. ii. 255.
Ritus, six seasons into which the Hindus divide the year. See Weather.
Rivers of Malabar have no names, ii. 110, 137

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Robinia mitis L., a tree very common in India, i. 160. ii. 295.
Roman coins found in Coimbetore, ii. 31.
Rotation of crops. See Crops.
Rungaru, a kind of dyers. See Cumbharu, also i. 156, 176.
Rupea, Rupiya, or Rupee, a silver coin. See Arcot, Bombay, Madras, Mysore, Poudichery, Sultany, Surati.
Russy, a measure of length. See Chain.
Sack-cloth of Indian hemp. See Crotolaria.
Sacrifices, i. 169, 222, 293. ii. 276.
Sadru, a caste of the Sudras of Karnata, living by agriculture, i. 292.
Sagar, ii. 380.
Sago. See Caryota, Corypha, Cycas.
Sahasiva-hully, ii. 413, &c.
Saivam, a sect of Hindus, i. 99.
Saktis, a class of destructive or malevolent female deities worshipped by the Hindus. See Bhadra Kali, Birnala, Caragadumma, Chaudeswari, Culimantia, Dumawutty, Durgama, Gungoma, Iberabuta Kali, Marima, Mutialima, Putalima, Virapakshima, Yellama, i. 169, 211, 232, 233, 334. ii. 239, 256, 266.
——— Pracriti, a Hindu deity, i. 232.
Salaga, a dry measure. See Candaca.
Saligrama, a town of Mysore, i. 362.
Saline earth, i. 21, 24, 98, 104, 465. ii. 29, 30, 419, 424.
——— wells, i. 183, 467. ii. 30, 419.
Salivahanam, a great king from whom an era is derived, i. 160, 191, 430.
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Sama, a kind of corn. See Panicum miliare.
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Sandal and Teak trees not found in the same forests, ii. 402.
Sankara Acharya, a personage celebrated as founder of a sect of Brahmans, i. 99, 212, 233, 344, ii. 104, 110, 139, 265, 411.
———Narayana, image of, ii. 319.
Sannyasis, men who have forsaken all for God, i. 15, 100, 167, 212, 231. ii. 257, 266, 271.
Sanscrit language, ii. 20.
Sapan wood, a dye, ii. 147.
Saponaceous plants. See Mimosa, i. 26, 160, ii. 54.
Saraf, a money-changer, i. 440.
Sarvakas, or Charvakas, a sect of Hindus, i. 99, 344.
Sashivay. See Mustard.
Sastram, the scriptures of the Hindus, read on solemn occasions, i. 165.
Satanana, a caste dedicated to Vishnu. See Vaishnavam.
Sotghadam or Satghur, a town of Arcot, i. 16.
Satimangala, a town of Coimbetore, i. 456.
Satunru, ii. 499.
Satteagala, a town of Karnata annexed to Coimbetore, i. 405.
Saugata, an heretical sect of Hindus. See Buddha.
Savana-Durga, a fortress of Mysore, i. 123.
Savaram, a sect of Hindus, i. 99.
Saw-mill, ii. 137.
Sawmun, a kind of corn. See Panicum miliare.
Seasons, hot and cold, rainy and dry. See Weather.
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Sects. See Christians, Hindus, Mussulmans.
Sedasiva, fable respecting him, ii. 380.
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Seer (sida), a weight, i. 89, 135, 209, 252, 288, 372, 436, 465. ii. 4. 55, 220, 305.
Seringapatam, properly Sri Ranga Pattana, a city of Karnata, i. 42, 52, 352, 395, 411. ii. 291, 493.
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Servants. See Wages, i. 85, 86, 270, 367, 441. ii. 32, 198, 227, 326, 520.
Sesamum, a plant cultivated for oil, i. 65, 198, 200, 202, 252, 258, 263, 366, 402, 444, 446, 453. ii. 11, 34, 73, 86, 108, 122, 123, 198, 231, 261, 515.
Shalay, or Shaliar, a caste of weavers. See Padma and Samay.
Shamay, a kind of corn. See Panicum miliare.
Shanaboga, in Mysore, the register or accomptant of a manor. See Village Officers, i. 56.
Shanapu, or Indian hemp See Crotolaria.
Shanar, a caste of Tamuls who manage palm trees, analogous with the Tiars of Malayala, the Biluaras of Tulava, and the Idigaru of Karnata. See these. i. 7.
Shanday, a kind of fair.
Shavacadu, a town of Malabar, ii. 403.
Shaymbliar, a kind of sheep. See Sheep.
Shaynagaru, a caste of weavers, i. 148, 150, 172.
Sheep, i. 82, 303, 335, 337. ii. 2, 76, 242, 433, 447.
Sheikdar, in Mysore, an officer managing a division (Hobly). See Parputty.
Shekhury Raja, a chief of Malabar, ii. 53.
Shelacary, a village of Malabar, ii. 80.
Shepherds, ii. 468.
Sheristadar, accomptants and registers, i. 56, 189, 440.
Shetuwai, an island on the coast of Malabar, ii 82.
Shidy munnu, a micaceous or talcose earth used for white washing, i. 333.
Shin-nai, a wild beast. See Dog.

Shiraly, ii. 295.
Shirnada, a district of Malabar, ii. 111, 131, 136.
Shist, or Shista, a valuation of a territory. See Survey; and a land-tax. See Land-tax.
Shiva-mogay, or Simogay, ii. 403, 404.
Shola, or Chola, a town and principality called Tanjore by Europeans, i. 429.
Sholum, a kind of corn. See Holcus sorghum.
Sholun rayas, a dynasty of princes, i. 333, 349. ii. 51, 82, 105, 106, 532.
Sicany-pura, a town of Mysore, i. 354.
Siclar, or Shecliar, a low caste who deal in leather. See Madigaru, i. 13.
Sida, a weight. See Seer.
Siddamana-hully, ii. 439.
Sidday, a deity of the Hindus, i. 478.
Siddha, a god of the Jainas, ii. 255, 257, 259, 260.
Siducy, a gold coin. See Mohur.
Sienite, ii. 463.
Sila-cullu, or image-stone. See Pot-stone.
Silagutta, a town of Mysore, i. 220.
Siliga, a dry measure. See Candaca.
Silk, and manufacture of silk, i. 145, 154, 473.
Singanaluru, a town of Karnata annexed to Coimbetore, i. 412.
Sira, a considerable town of Mysore, i. 276.
—— subah, a Mussulman government, i. 193.
Sirdar, a Mussulman officer, i. 296.
Sirjapura, a town of Mysore, i. 189.
Siru-muga, a village of Coimbetore, i. 463.
Sitala-durga. See Chitteldroog.
Siva, or Iswara, or Mahadeva, or Maheswara, a deity of the Hindus. See Linga, i. 9, 99, 168, 211, 232. ii. 256, 266.
—— Acharyas, a caste of Karnata, i. 391.
—— bhaktaru, a religious sect. See Pashandi, Jangama, i. 166, 391. ii. 290, 378, 385, 402.
Sivana Samudra, an island in the Kaveri river, i. 406, 409.
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Small-pox. See Marima, ii. 8.
Smartal, a religious sect. See Brahmans.
Smee, Mr., one of the commissioners for managing Malabar, ii. 61, 118.
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Soda, or fossile alkali, i. 104, 147. ii. 459.
Soil, different kinds, i. 57, 67, 71, 376, 377, 400, 406, 443, 467. ii. 37, 246, 247, 295, 296, 308, 310, 323, 333, 344, 345, 361, 371, 381, 417, 423, &c., 473.
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Soligaru, a rude tribe inhabiting the mountains of Karnata, i. 113, 414.
Sonaka Guda, ii. 323.
Sopina angady, a place in Canara, ii. 253.
Soonda, or Sudha, ii. 349, 353, 371.
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Soulu, impure soda. See Soda.
Soulu munnu. See Saline Earth.
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Sringa-giri, a place of great celebrity in Mysore, i. 212, 344.
Sri Permaturu, or Srivaram Phutur, a town of Arcot, i. 4, 99, ii. 529.
Sri Vaishnavam, a religious sect. See Brahmans.
Stamp duties on Cloth, i. 457, 459, 474. ii. 17.
Stanika, a caste. See Moylar.
Star Pagoda, called also Company's P. and Pu Varahun, a gold coin, i. 88, 446. ii. 219.
State of the country. See Appearance.
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Strings for musical instruments, i. 105.
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———— among Hindus, i. 101. ii. 53, 95, 214, 218, 239, 248, 255.
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———— and Jagory, or its inspissated juice, manufacture. See Mill, Sugar, i, 66, 109, 110, 236, 246, 363. ii. 69, 233, 303, 418, 502.
Sugar-mill. See Mill.
Suja-cara, a kind of soda. See Soda.
Suja or Sujagurry, a kind of corn. See Holcus spicatus.
Sujeswara, a celebrated temple, ii. 326.
Sultany Rupee, a silver coin, i. 88, 368, 372, 437, ii. 4, 25.
——— Pagoda, Hun, or Varaha, a gold coin, i. 88, 252, 436. ii. 25, 219.
——— Fanam. Hana, or Palam, a gold coin, i. 88, 437. ii. 219.
Sunca, or custom-house. See Customs.
Sunticopa, ii. 377.

Supari, or Betel-nut. See Areca.
Surati Rupee or Rupiya, a silver coin, ii. 219.
Surf on the sea coast, ii. 137, 208.
Survey of the country, i. 134, 187, 286, 359, 361, 400, 437, 448. ii 4, 15, 31, 41, 89, 117, 118, 120, 133, 139, 147, 158, 169, 202, 273.
Surya-manam, or solar year of the Hindus. See Calendar of Coimbetore.
Suvarna, a river of Canara, ii. 272.
Swami, bountiful charity of one, ii. 404.
Swine, i. 83, 353. ii. 76, 242.
——— wild. See Boar.
Swarna-reka river, ii. 503.
Tacavy, money advanced to poor farmers, in order to enable them to procure stock, i. 421, 438.
Tadaguny, a kind of pulse. See Dolichos catsiang.
Tahsildar, in Coimbetore and Canara, a chief officer of a district (Taluc), i. 405, 440, 14, 17, 33, 210.
——— in Mysore, an inferior officer of a division (Hobly). See Munigar.
Taiuru, a town of Mysore, i. 306.
Tal, a kind of palm. See Borassus.
Talacadu, a town of Mysore, i. 404, 410.
Talawai palyam, a town of Coimbetore, ii. 6.
Talliari, a servant on the establishment of each manor in Mysore, i. 2, 188, 368.
Taluc, in Mysore, Coimbetore, and Canara, a subdivision of the country, like our counties or hundreds, i. 55, 188, 405, 440.
Tamarachery, a town and district of Malabar, ii. 145, 146, 150, 153, 183.
Tamarinds, a fruit, ii. 44.
Tamul, a language, called by the English of Madras Malabars; and a people, called also Tigul, who inhabit the east side of the southern end of the peninsula, i. 6, 189, 235, 339, 422, 430, 455, 462.
Tamuri Raja, a prince called Zamorin by Europeans, ii. 49, 52, 79, 83, 104, 110, 112, 130, 131, 136, 139, 156.
Tangul, chief priest of the Moplay Mussulmans, ii. 102.
Tanjore, a city of Southern India. See Shola.
Tank. See Reservoir, Water.
Tanning. See Leather.
Tany pundal, a shed where water is distributed by charitable persons to the traveller. See Accommodation.
Tar, a kind of palm. See Borassus.
Tari-holay, ii. 307, 354.
Tarkari, properly signifies all the productions of a garden raised for the use of the kitchen, but is extended to many articles cultivated in the same manner for different purposes. See Gardens, Kitchen.
Tarrum, a copper coin, ii. 183.
Tarugaru, in Mysore, one of the servants on the establishment of a manor or village, i. 188.
Tala pyru, a kind of pulse. See Dolichos catsjang.
Tati holay, a small river of Karnata, i. 413.
Tavina caray, a town of Mysore, i. 310.
Tayculum. a village of Mysore, i. 23, 25.
Tay pallay, a scoop for watering land, ii. 237.
Teak timber, i. 130, 377, 461. ii. 47, 77, 80, 113, 137, 148, 158, 197, 247, 344, 361, 401.
Telinga, Teliga, or Telingana, a nation and language occupying the north-east part of the Peninsula, and part of the east side of the Subah of the Dekkan, and called Anthra in Sanscrit, i. 21, 224, 248, 420.
Tellichery, an old establishment of the English in Malabar, ii. 168.
Temples. See Betta, Busty, Covil, Cuncheny, Gudy, Mosque, Pagoda, Prostitutes, Religious establishment, i. 9, 333, 334, 342, 343, 350, 439, 464. ii. 13 23, 96, 248, 271, 277, 292, 295, 297, 326, 401, 412, 420, 472, 474, 526.
Tenay, a kind of corn. See Panicum italicum.
Tenures of farms, gardens, and lands. See Baliky, Candashara, Chericul, Devastanam, Enam, Gaynicara, Jaghire, Jenmcar, Lease, Mortgage, Mulacara, Polygar, i. 85 109, 189, 269, 280, 287, 340, 355, 368, 391, 420, 438, 439. ii. 14, 16, 23, 32, 64, 89, 108, 112, 123, 133, 215, 225, 226, 240, 252, 270, 298, 325, 358, 369, 396, 409, 443, 478, 519, 531.
Terra japonica, Catechu, or cut, a drug, i. 128. ii. 324, 325.
Terraces formed for the cultivation of hills, i. 57, 352. ii. 108.
Terricaray, ii. 419.
Tiar, a caste of Malyala who manage palm trees, analogous to the Shanar of the Tamuls, the Biluara of Tulava, and Idigaru of Karnata, ii. 97.
Ticory colai, a kind of pulse. See Phaseolus minimoo.
Tigers, i. 113, 302, 336, 359 374, 380, 408, 462. ii. 247, 253, 332, 348, 414, 469, 499, 500.
Tigul, the Karnata name for the people called Tamuls. See Tamul.
Timber. See Forests, Teak, i. 461.
Tippoo Sultan, late sovereign of Mysore, &c, i. 38, 64, 46, 47, 209, 229, 246, 251, 276, 277, 296, 350, 355, 357, 373, 393, 412, 420, 424, 426, 438, 441, 450, 454, 461, 464. ii. 9, 30, 38, 52, 65, 103, 106, 118, 119, 139, 153, 167, 181, 190, 195, 196, 209, 210, 216, 219, 226, 242, 245, 246, 249, 250, 254, 262, 264, 272, 291, 297, 325, 326, 382, 444, 481, 527.
———, his sons, ii. 527.
Tirtha, a pilgrimage where the ceremonies are performed in water, ii. 23.
Tiruvana angady, a village of Malabar, ii. 131.
Tithi, an annual fast in commemoration of their deceased parents, performed by Brahmans. See Fast, i. 172.
Titles, among the Hindus, derived from the construction of useful works, i. 10.
Tobacco, i. 35, 202, 468. ii. 5, 12, 29, 470, 511.
Togari, a kind of pulse. See Cytisus.
Togotaru, a caste of weavers in Karnata, i. 151. 219.

Tola, or Tolam, a weight, See Weights. i. 436. ii. 4, 55, 84, 115.
Tonda, a shrub cultivated for its oil. See Ricinus.
Tonuru, a town of Mysore, i. 348, 350.
Torearu, a class of weavers of the tribe called Besta, i. 373, 397, 472, 478.
Tota, garden land or produce, in opposition to that which is arable. See Gardens.
Totear, a [illegible] low caste of Tamuls, ii. 40.
Toti, a kind of watchman belonging to the establishment of a village or manor in Mysore, i. 188, 439.
Tovary, a kind of pulse. See Cytisus.
Tower, a kind of pulse. See Cytisus.
Towns, i. 38, 45, 310, 326. ii. 54.
Trade. See Commerce.
Travancore, European name for a principality of Malayala, governed by the Kerit Ram Raja, ii. 52, 91, 127, 156.
Travelling. See Accommodation.
Trees. See Forests.
Tribes. See Christian, Hindu, Mussulman.
Trigonella, Fænum græcum L., a kind of pulse, i. 254, 260. ii. 5.
Trimula Devaru, a Hindu deity, i. 249.
Trimula Nayaka, an intelligent person of the Mudura family, i. 252, 297.
Trinity, doctrine of, among the Hindus, i. 233.
Tripaturu, ii. 525.
Tripura, a town of Coimbetore, ii. 3.
Tritalay, a place in Malabar, ii. 106.
Tritchenopoly, a town of Arcot, i. 429.
Triticum monococcum L. } Two kinds of corn.
——— spelta L. } See Wheat.
Tucu, a weight. See Weights, i. 401, 436.
Tuduru, ii. 401.
Tufa calcarea, or concretion of lime. See Lime.
Tulam, a weight, usually called Maund by the English. See Maund.
Tulava, a country in Hindu geography, forming part of the province of Canara. See Rajas, ii. 213, 215, 265, 268, 274, 278.
Tully, a village of the Bara-mahal, ii. 503.
Tumbula, a rivulet of Coimbetore, i. 424.
Tumcuru, a town of Mysore, i. 310.
Tundu, the flowers of a Cedrella, a dye, i. 150. ii. 402.
Tunga river, ii. 401, 404.
Tungabhadra river, ii. 413.
Turc, a nation of Tartary, ii. 269.
Turin, Mr., commercial, resident in Malabar, ii. 176.
Turiva-caray, a town of Mysore, i. 334.
Turmeric, cultivated, i. 228. ii. 122, 135, 243, 261.
———, wild, i. 373. ii. 43.
———, used as a dye, i. 147.
Tyre, milk curdled by having become sour. See Milk.
Udied. See Phaseolus minimoo.
Udipu, a town of Canara, ii. 270.
Udu, a kind of pulse. See Phaseolus minimoo.
Ulala, a town and petty principality of Canara, ii. 217.
Ulandu, a kind of pulse. See Phas[illegible] minimoo.
Uluvadi, ii. 402.
Upadesa, or instruction, a religious ceremony among the Hindus, i. 100, 101, 480
Uparu, a low caste of Telingana, i. 21[illegible].
Urigara, a place in Canara, ii. 208.
Urnalivully, among the Tamuls, a Hi[illegible] hour's journey. See Measures of length.
Urucate, a female deity of the Hindus, i. [illegible]
Urudu, a kind of pulse. See Phaseolus [illegible]
Vadacurray, a place of note in Malabar, ii. 10[illegible].
Vahanicula family, an Indian dynasty, ii. [illegible]
Vaidika Brahman, one who dedicates [illegible] devotion and study, and subsists upon charity. See Brahman.
Vairagis, a caste of Northern India, dedicated to the service of Rama, i. 211, 346.
Vaishnavam, a religious sect, i. 99.
———, a caste of the Sudras of South[illegible] India, dedicated to the service of Vishnu, called also Satananas, i. 218, 224, 274, 381.
Vaisyas, the third pure caste of Hindus. See Bheri, Comatiga, Naguratra, i. 176, 1[illegible], 1[illegible].
Vakia, and his descendants, kings in India, ii. 2[illegible].
Valiencodu, a village of Malabar, ii. 96.
Vamanas, a religious sect of Hindus, i. 341.
Vanambady, ii. 525.
Varagu, a kind of corn. See Paspalum frumentaceum.
Varaha, or Varahun, a gold coin of India, commonly called Pagoda. See Pagoda.
Varnish of Malabar, ii. 140.
Varum, in Malabar, implies rack-rent, ii. 169.
Vatum, a disease occasioned by cold winds, ii. 107.
Vaum, a fathom. See Mar.
Vayasa, or Veda Vayasa, or Vedi Vayasa, a personage celebrated among the Brahmans, ii. 105, 255, 265, 268, 270, 292.
Vaylalar, a caste of Sudras among the Tamuls, ii. 38.
Vaylu, a kind of rice land in Malabar, ii. 199.
Vaypura, a town of Malabar, ii. 137.
Vaytuvan, a low caste of Malabar, ii. 144
Vedawati river, ii. 441.
Veee, a weight. See Weights, i. 4, 436, ii. 55.
Veideswara, a deity of the Hindus, i. 357.
Velami tota, ground cultivated like a garden, and watered by machinery. See Gardens, kitchen.
Vellater, a district of Malabar, and its Raja, ii. 111, 112.
Vellore, a town of Arcot, i. 12, 13. ii. 527
Vencata-cotay, a village of Malabar, ii. 1[illegible]
———ghery, or giri, a town of [illegible] annexed to the Bara-mahal, i. 20, 21.
———Ramana, a celebrated i[illegible] of Vishnu at Tripathi, i. 169, 249.
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